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ABSTRACT

Focusing on the use of demographic information in the teaching of population education, this volume presents issues and problems encountered in planning and implementing such a program. Designed to provide basic reference sources for population education administrators, teachers, and curriculum developers, this book contains an up-to-date listing and critical survey of demographic studies in selected countries. There are 186 publication abstracts spanning the period 1975-1985. The book is organized into 10 sections: (1) General; (2) Population Size and Growth; (3) Age and Sex Composition; (4) Fertility; (5) Mortality; (6) Morbidity; (7) Nuptiality; (8) Migration; (9) Urbanization and Distribution; and (10) Impact of Population Growth on Socio-Economic and Education Variables. A geographical index and a subject index are included. (KWL)

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Selected Entries on Demography and Its Bearing on Population Education in Seven Asian Countries

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Abstract-Bibliography
Series 7

Population Size and Growth

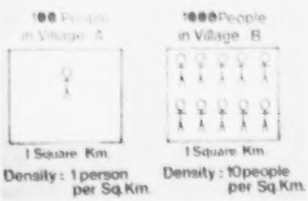
Age and Sex Composition

EARLY MARRIAGE AND FERTILITY

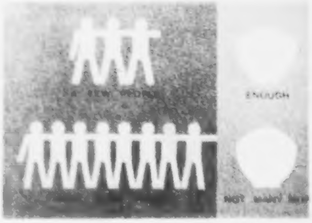
Fertility

IN MIGRATION

Migration


100 People
in Village A
1000People
in Village B
1 Square Km
1 Square Km
Density : 1 person per Sq.Km
Density : 10people per Sq.Km.

Population Distribution



Population and Resources

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Population Education Programme Service
UNESCO REGIONAL OFFICE FOR EDUCATION IN ASIA AND THE PACIFIC
Bangkok, 1986

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P016

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Abstract-Bibliography

Series 7

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INTRODUCTION

Demography and Its Bearing on Population Education

This issue is the seventh in a series of abstract-bibliographies dealing with concrete issues and problems raised by population education workers in the course of undertaking a population education programme. This seventh volume focuses on the use of demographic information in the teaching of population education.

Demography, unlike sex education or family planning, is a content area which is more universally accepted in population education programmes. It always forms part of any population education course in the secondary and tertiary levels. Demography is the scientific study of human populations, including their size, composition, distribution, density, growth and the causes and consequences of changes in these factors. The kind of information one is looking for in demography can be categorized into three: population size and distribution, which means the number of people and the degree of concentration in specific places; population processes, which involve fertility, mortality and migration, and population structure and characteristics which refer to the population composition and other characteristics like sex, age, educational attainment, status of employment, ethnic origin, family income and marital status.

Many of the concepts of demography are very useful in population education. Population education, as defined, is to help learners understand the interrelationships between population factors and human welfare and to encourage them to act in a way to improve the quality of life of the individual, the family, the nation and the world. Rapidly growing population, high age-dependency ratio, high birth and fertility rates, high morbidity incidence rate, increasing migrations of populations to the cities and congested areas, high population density and rapidly increasing urbanization affect the production and consumption of food, provision of education, environmental sanitation, provision of health services, employment, housing and other aspects of quality of life, all of which are the concerns of population education.

An examination of curriculum materials will show that population composition and growth can easily be used as contents in geography, mathematics, science and social studies. In social studies, for example, a lesson about community and population change, more specifically, population in school and various settlements is aimed at developing understanding about the size, composition, group, sex, age, distribution and characteristics of various types of population in the community. Topics such as mortality, fecundity and fertility are taken up in health education in relation to man's health and well-being. Rapid population growth is also discussed in terms of its impact on food shortage and malnutrition, overcrowding and environmental sanitation problem. At the tertiary level, demography can serve as one of the units in general and rural sociology course. In sociology, demography is taken up in relation to its social and economic implications. For example, the results of population pressure include the growing number of dependents who must be supported by the working population, the mounting difficulties of educating the multiplying youth, preventing dietary insufficiencies and the increasing unemployment and underemployment. With a rapidly growing population, a considerable portion of funds available for investments must be absorbed in the infrastructure and the expansion of capital resources is required merely to maintain the present level of productivity per worker.

A cursory examination of bibliographies in the field of demography has shown that numerous bibliographies have been prepared on demography in general and other variables of demography, but none relates them to population education. This series attempts to abstract publications on demography that can be used in curriculum development and teaching of population education. An introductory section shows how demographic data can be used for these purposes.

This abstract-bibliography provides a basic reference tool for the use of population education administrators, teachers and curriculum developers in showing how demographic concepts can be used in planning, curriculum development, training and teaching of population education. It also presents an up-to-date listing and critical survey of demographic studies in selected countries. More importantly, it provides an analytical review of how materials, concepts and research results in demography can be used to enrich population education programmes.

There are 186 publications abstracted in this series, spanning the period 1975-1985. They are grouped according to the eight basic demographic variables and two subject groupings entitled General and Consequences of Population Growth on Socio-Economic, Cultural and Educational Variables. These 10 subject groupings include the following:

Section One : General
Section Two : Population Size and Growth
Section Three : Age and Sex Composition
Section Four : Fertility
Section Five : Mortality
Section Six : Morbidity
Section Seven : Nuptiality
Section Eight : Migration
Section Nine : Urbanization and Distribution
Section Ten : Consequences of Population Growth on Socio-Economic Cultural and Educational Variables.

This publication is a spin-off of three contracts which were awarded to Mr. G.R.M. Karunaratne of the Marga Institute of the Sri Lanka Centre for Development Studies, Mrs. Socorro Camacho-Reyes of the Population Center Foundation of the Philippines and Dr. Kanikar Sookasame of the Thailand National Institute of Development Administration to prepare abstract-bibliographies on demography and its bearing on population education. Their publications cover demographic materials about Bangladesh, India, Nepal, Pakistan, Sri Lanka for South Asia and the Philippines and Thailand for South East Asia. The readers should take note that this series covers only seven countries in Asia. It is planned that a supplementary series will be prepared to cover other countries not included in this series when funds become available. The entries in the three documents were compiled and consolidated by UNESCO, resulting in an analytical review which concretizes how demographic contents can be used for programmes of population education.

Under each of the section, the entries are arranged alphabetically by author, institution or other main entries within each classification. An entry consists of the bibliographic citation, an informative abstract, source and descriptors. The descriptors are derived from the UNESCO, International Bureau of Education and the Carolina Population Center Thesauri and the Organization for Economic Co-operation and Development Macrothesaurus. Before each section, an analytical review is presented showing how demographic data can be used in population education. The publications abstracted include censuses, statistical compendiums, research studies, surveys, handbooks, textbooks, country demographic profiles, population reports, government documents, periodical articles, meeting/workshop reports, state-of-the -art, literature reviews and case studies.

SECTION 1: GENERAL

General

This section has been given the heading "general" since the entries do not focus on any one theme as in Sections Two to Ten, but by and large, encompass all the variables or components of demography which are taken up one by one in the other sections respectively. There are 16 selections in this section. It includes materials which deal with the definition, concepts and methodologies of demography and the description of various demographic variables.

The majority of the abstracts deal with the entire gamut of topics which fall under demography while some focus on aspects of it. For example, about five selections deal with the definition of demography, discusses the various demographic components such as births, deaths, and migration and explain some basic demographic processes such as fertility, mortality and migration. Likewise, population growth, age-sex composition, geographic distribution and other vital processes are also described. On the other hand, four entries go beyond these basic information on demography by including an explanation of how demographic data are gathered and from what sources; how they are measured and computed. Six selections try to analyse demography from a wider perspective by showing how rapid population growth can affect development, socio-economic, political and other aspects of the quality of life of a country. Discussed in this perspective are also socio-cultural factors that influence population conditions as well as those that result from demographic conditions. Examples of these are the five ESCAP country monographs which show how population growth can affect employment, education, economy, social aspect, health needs, food supplies and nutrition, families, households, and housing needs, laws and status of women. About three entries which include discussion of the above saw the importance of also explaining what countries are doing in response to rapid population growth through an exposition of their population policies, family planning programmes, contraceptive use and responsible parenthood.

Six of the selections bear directly or focus only on specific aspects of demography. For example, three of these six selections are instructional materials and modules on population education which provide both teachers and students comprehensive information on demography, demographic variables and population dynamics from which population education heavily draws upon for its contents. The other two selections deal with sources and quality of population data including basic demographic tools and techniques. One selection discusses four major sources of demographic data, namely, the population census, the sample surveys, the civil registration system, and the dual record system. The nature and regularity of these sources of demographic data are dealt with. One of these three selections point out the most common source of errors and appraises the accuracy of population census and civil registration data.

Demography and its bearing on population education

Population education derives the bulk of its contents from demography. Demography is essentially a social science. However, in some respects, it borders on disciplines as biology, mathematics, and ethics. Formal demography deals with gathering, collating, statistical analysis and technical presentation of population data. In this respect, formal demography demands mathematical skills. Population analysis, on the other hand, is the systematic study of population trends and phenomena in relation to their social setting. The birth and death of an individual are biological events, but they take place in a social setting. Population processes are the consequences of natural laws and social conditions. Population analysis is, therefore, tied to the data and concepts of sociology, economics, geography, ecology and anthropology. At the lower levels of the educational system, demographic contents are part and parcel of social studies, health education, civics, mathematics, home economics, geography and others which all show how quantitative changes of human populations affect quality of life. Population education in many countries is introduced into these subjects. Sections Two to Ten of this Abstract-Bibliography Series will more concretely analyse how these various demographic components, processes and measures can be used in teaching population education.

01. **Desai, Prasannavadam, B.** *Social science research on population and development in Middle South Asia.* Mexico City, International Review Group of Social Science Research on Population and Development, 1978. 132 p., appendices.

The book begins with an overview of the social, economic and demographic situation in Middle South Asia. The general economic conditions in these countries retain most of the characteristic features of economic backwardness. The situation is aggravated by inequalities of income distribution. With the exception of Sri Lanka, educational development is quite unsatisfactory in most of these countries. A significant feature of the demographic structure of all these countries, except Nepal, is the disproportion in the sex ratio. The process of rapid urbanization has not solved any of the problems of population growth. Rural poverty has been changed into urban misery. Chapter Two discusses population policies in each of these countries - Bangladesh, Nepal, India, Pakistan and Sri Lanka. Chapter Three reviews the literature on population, paying special attention to the writings of the most recent years in which there has been a growing emphasis on the need for applied or policy-oriented research. Chapter Five entitled "Knowledge and Gaps" discusses the demographic data, population growth, fertility, internal migration, population structure and composition of the countries of South Asia and the limitations in the knowledge base. Appendix A gives statistical tables, current social, economic and demographic indicators and Appendix B gives a cross-classification of literature on population according to subject matter and treatment by country. The study focuses attention on the need for action research to overcome the population problems of South Asia.

Descriptors: *Population Composition and Dynamics; Population Research; South Asia*

Source: International Review Group of Social Science Research on Population and Development
El Colegio de Mexico, Apartado Postal 20-671
Mexico City 20, D.F.
Mexico

02. Economic and Social Commission for Asia and the Pacific. *Population of Bangladesh.* Bangkok, 1981. 275 p. (Country monograph series no. 8).

The eighth in a series of country monographs on the population situation of interested countries in Asia and the Pacific, this monograph provides an understanding of existing population problems, as well as with a scientific basis for decision-making, policy formulation and determination of development goals and targets. An immediate objective of the monograph is to encourage the analysis and maximum utilization in planning of the data collected through censuses, vital registration system and sample surveeys. The first few sections deal with a description and analysis of the various demographic targets. An immediate objective of the monograph is to encourage the analysis and maximum utilization in planning of the data collected through censuses, vital registration system and sample surveys. The first few sections deal with a description and analysis of the various demographic characteristics of the country. These include size, growth and distribution of population, urbanization, sex and age composition of the population, trends and differentials in mortality, trends and patterns of fertility, nuptiality, population projections and population policy and programmes. The last sections each presents the linkages or relationship between population growth vis-a-vis employment, education, economy, social aspect, health needs, food supplies, families, households and housing needs, nutrition, law and status of women. It also includes annexes on the various sources of demographic data and the evaluation findings of the quality of demographic data used.

Descriptors: *Population Composition and Dynamics; Population Pressure; Socio-cultural Factors; Data Collection; Bangladesh*

Source:
Clearinghouse and Information Section
ESCAP Population Division
Rajdamnern Avenue
Bangkok 10200
Thailand

03. Economic and Social Commission for Asia and the Pacific. *Population of India.* Bangkok, 1982. 414 p. (Country monograph series no. 10)

The tenth in a series of country monographs on the population situation of interested countries in Asia and the Pacific, this monograph provides an understanding of existing population problems, as well as with a scientific basis for decision-making, policy formulation and determination of development goals and targets. An immediate objective of the monograph is to encourage the analysis and maximum utilization in planning of the data collected through censuses, vital registration system and sample surveys. The first few sections deal with a description and analysis of the various demographic characteristics of the country. These include size, growth and distribution of population, urbanization, sex and age composition of the population, trends and patterns of fertility, nuptiality, population projections and population policy and programmes. The last sections each presents the linkages or relationship between population growth vis-a-vis employment, education, economy, social aspect, health needs, food supplies, families, households and housing needs, nutrition, law and status of women. It also includes annexes on the various sources of demographic data and the evaluation findings of the quality of demographic data used.

Descriptors: *Population Composition and Dynamics; Population Pressure; Socio-cultural Factors; Data Collection; India*

Source:	Clearinghouse and Information Section ESCAP Population Division Rajdamnern Avenue Bangkok 10200 Thailand

04. Economic and Social Commission for Asia and the Pacific. *Population of Nepal.* Bangkok, 1980. 219 p. (Country monograph series no. 6)

The sixth in a series of country monographs on the population situation of interested countries in Asia and the Pacific, this monograph provides an understanding of existing population problems, as well as with a scientific basis for decision-making policy formulation and determination of development goals and targets. An immediate objective of the monograph is to encourage the analysis and maximum utilization in planning of the data collected through censuses, vital registration system and sample surveys. The first few sections deal with a description and analysis of the various demographic characteristics of the country. These include size, growth and distribution of population, urbanization, sex and age composition of the population, trends and differentials in mortality, trends and patterns of fertility, nuptiality, population projections and population policy and programmes. The last sections each presents the linkages or relationship between population growth vis-a-vis employment, education, economy, social aspects health needs, food supplies, families, households and housing needs, nutrition, law and status of women. It also includes annexes on the various sources of demographic data and the evaluation findings of the quality of demographic data used.

Descriptors:	*Population Composition and Dynamics; Population Pressure; Socio-cultural Factors; Data Collection ; Nepal*
Source:	Clearinghouse and Information Section ESCAP Population Division Rajdamnern Avenue Bangkok 10200 Thailand

05. Economic and Social Commission for Asia and the Pacific. *Population of Sri Lanka.* Bangkok, 1976. 397 p. (Country monograph series no. 4)

The fourth in a series of country monographs on the population situation of interested countries in Asia and the Pacific, this monograph provides an understanding of existing population problems, as well as with a scientific basis for decision-making, policy formulation and determination of development goals and targets. An immediate objective of the monograph is to encourage the analysis and maximum utilization in planning of the data collected through censuses, vital registration system and sample surveys. The first few sections deal with a description and analysis of the various demographic characteristics of the country. These include size, growth and distribution of population, urbanization, sex and age composition of the population, trends and differentials in mortality, trends and patterns of fertility, nuptiality, population projections and population policy and programmes. The last sections each presents the linkages or relationship between population growth vis-a-vis employment, education, economy, social aspect, health needs food supplies, families, households and housing needs, nutrition, law and status of women. It also includes annexes on the various sources of demographic data and the evaluation findings of the quality of demographic data used.

Descriptors: *Population Composition and Dynamics; Population Pressure; Socio-cultural Factors; Data Collection; Sri Lanka*

Source:
Clearinghouse and Information Sec-
ESCAP Population Division
Rajdamnern Avenue
Bangkok 10200
Thailand

06. Economic and Social Commission for Asia and the Pacific. *Population of Thailand.* Bangkok, 1976. 220 p. (Country monograph series no. 3)

The third in a series of country monographs on the population situation of interested countries in Asia and the Pacific, this monograph provides an understanding of existing population problems, as well as with a scientific basis for decision-making, policy formulation and determination of development goals and targets. An immediate objective of the monograph is to encourage the analysis and maximum utilization in planning of the data collected through censuses, vital registration system and sample surveys. The first few sections deal with a description and analysis of the various demographic characteristics of the country. These include size, growth and distribution of population, urbanization, sex and age composition of the population, trends and differentials in mortality, trends and patterns of fertility, nuptiality, population projections and population policy and programmes. The last sections each presents the linkages or relationship between population growth vis-a-vis employment, education, economy, social aspects, families, households and housing needs, nutrition, law and status of women. It also includes annexes on the various sources of demographic data and the evaluation findings of the quality of demographic data used.

Descriptors: *Population Composition and Dynamics; Population Pressure; Socio-cultural Factors; Data Collection; Thailand*

Source:
Clearinghouse and Information Section
ESCAP Population Division
Rajdamnern Avenue
Bangkok 10200
Thailand

07. Economic and Social Commission for Asia and the Pacific. *Population of the Philippines.* Bangkok, 1978. 349 p. (Country monograph series no. 5)

The fifth in a series of country monographs on the population situation of interested countries in Asia and the Pacific, this monograph provides an understanding of existing population problems, as well as with scientific basis for decision-making, policy formulation and determination of development goals and targets. An immediate objective of the monograph is to encourage the analysis and maximum utilization in planning of the data collected through censuses, vital registration system and sample surveys. The first few sections deal with a description and analysis of the various demographic characteristics of the country. These include, size, growth and distribution of population urbanization, sex and age composition of the population, trends and differentials in mortality, trends and patterns of fertility, nuptiality, population projections and population policy and programmes. The last sections each presents the linkages or relationship between population growth vis-a-vis employment, education, economy, social aspect, health needs, food supplies, families, households and housing needs, nutrition, law and status of women. It also includes annexes on the various sources of demographic data and the evaluation findings of the quality of demographic data used.

Descriptors: *Population Composition and Dynamics; Population Pressure; Socio-cultural Factors; Data Collection; Philippines*

Source:
Clearinghouse and Information Section
ESCAP Population Division
Rajdamnern Avenue
Bangkok 10200
Thailand

08. Engracia, Luisa T. "Population projection," in: Mercedes B. Concepcion, ed. *Population of the Philippines: current perspectives and future prospects.* Manila, National Economic and Development Authority, 1983, p. 168-198.

An overview of the Philippine population in the 50-year period 1980-2030, is given in this paper, which presents the results of six alternative series of projections. The projections were based on demographic parameters in 1980, through the use of the cohort-components method. The six sets of projections, featuring a three-alternative course of fertility and a two-alternative course of mortality, are as follows:

Series 1 - rapid fertility decline with moderate mortality decline.
Series 2 - moderate fertility decline with moderate mortality decline.
Series 3 - slow fertility decline with moderate mortality decline.
Series 4 - rapid fertility decline with rapid mortality decline.
Series 5 - moderate fertility decline with rapid mortality decline.
Series 6 - slow fertility decline with rapid mortality decline.

Under the assumption of rapid fertility decline (Series 1 and 4), crude birth rate between 1980 and 1990 is estimated to decline by almost 7 per thousand, from 33.7 to 27.0. For the same period, under the assumption of moderate fertility decline (Series 2 and 5) and slow fertility decline (Series 3 and 6), crude birth rate is estimated to decline by only about 4 and 2.5 per thousand respectively. The author considers optimistic the fertility reduction under the assumption of rapid fertility decline (Series 1 and 4), given the rate of fertility decline in the past.

The variations of the crude death rate among the different projection series are quite small. The author observes that a pattern of change in this demographic index appears common to all the series. Increase in life span has the initial effect of reducing the crude death rate until the beginning of the 20th century. Thereafter, the crude death rate would increase mainly because of the changes in age structure. An increase in the number of the adult population may mean a higher crude death rate.

All the six series of projections imply that the Philippines population would continue to grow even by the year 2030 with the most optimistic series predicting an annual growth rate of 0.6 per cent. The possibility is very likely that around 2030, the population would double if fertility declines rapidly and mortality moderately; the population may double about 20 years earlier if the slow fertility decline with rapid mortality decline projection prevails.

By the year 2000, population growth rate is estimated at 1.23 under the assumption of rapid fertility decline with moderate mortality decline, and 1.32 under the assumption of rapid fertility decline with rapid mortality decline. By 2030, the population is estimated to grow at the rate of .60 under Series 1, .78 under Series 2, and .90 under Series 3 projections.

All the projections were prepared under the assumption that international migration will have no significant effect on the total population during the period covered by the projections.

Descriptors: *Population Projections; Population Dynamics; Philippines*

Source: Population/Development Planning and Research Projects
National Economic and Development Authority (NEDA)
Pasig, Metro Manila, Philippines

09. Mijares, Tito A. and Francisco V. Nazareno. "Sources of demographic data," in: Economic and Social Commission for Asia and the Pacific. *Population of the Philippines.* Bangkok, 1978. (Country monograph series no. 5), p.322-337.

This article discusses the nature of demographic data and the regularity of official data generation in the Philippines. Four major sources of demographic data are identified: the population census, the sample surveys, the civil registration system, and the dual record system.

Census data provide a wide range of information on the geographical, personal, educational, cultural, social, and economic characteristics of the population. Some improvements have been made through the years in the way census data are enumerated, tabulated, processed, and published.

The civil registration system provides detailed information on births, deaths, and marriages. Information relating to these demographic data was first published in 1941 by the Bureau of Census and Statistics in its yearbook of Philippine Statistics. Since 1956, consolidated reports following the United Nations reccommended tabulations have been published yearly in the vital statistics reports of the Bureau of Census and Statistics.

The Statistical Survey of Households provides up-to-date information on the composition and distribution of the population as well as on the principal characteristics of the labour force. This survey was conducted twice a year (in May and October) since the first one in October 1955 until its frequency was changed to quarterly in 1971. Since then, the survey has been conducted on a quarterly basis. The results are published in the National Sample Survey on Household Bulletin (Labour Force) Series.

The National Demographic survey provides information on the relationship to household head and family head, age, sex, civil status, religion, and other aspects such as fertility and social mobility. The first National Demographic Survey was conducted in 1968, the second in 1973.

The Dual Record System aims to arrive at reliable estimates of birth and death rates in the country at both the national and regional levels. It also aims to provide estimates to migration patterns and other demographic characteristics of the population. This system has adopted a scheme whereby vital events, such as births and deaths, are recorded for two separate and independent reporting schemes, namely, the continuous sample registration system and the periodic household enumeration, usually conducted once or twice a year. Events recorded in one scheme are paired against those reported in the other. On the basis of such matching the total number of events, either births or deaths during a specified period of time, is determined. Since its inception in 1971, the dual record system has gathered personal data, pregnancy history, information on migration, birth data, and death data.

Descriptors: *Vital Registration System; Philippines*

Source: Clearinghouse and Information Section
ESCAP Population Division
Rajdamnern Avenue
Bangkok 10200
Thailand

10. Peralta, Ana Maria R. and Marlene C. Ligan. *Philippine population: implications, program and policies.* Manila, University of the East Press, 1975. 148 p.

This textbook aims to help college students gain a better understanding of the population problem through a discussion and analysis of related concepts, theories and issues.

The first part of the book, which consists of six chapters, discusses population concepts and theories, then proceeds to analyse Philippines population in terms of size, composition, territorial distribution, and other factors. It also examines the alarming implications of rapid population growth, and how the country is trying to solve the problem.

The second part discusses fertility, human sexuality, the process of human reproduction, and the different methods of contraception. Also represented are socio-cultural factors that influence the population's acceptance of family planning.

Descriptors: *Population Composition and Dynamics; Population Pressure; Philippines*

Source: University of the East Press
University of the East
Manila
Philippines

11. Philippines. Ministry of Education, Culture and Sports. Population Education Program. *Demography: components, processes and measures.* Module no. 2 of "A module in population education for elementary and secondary school teachers". Second Edition. Manila, 1984. 30 p.

This is one in a set of twelve modules developed by the Population Education Program of the Ministry of Education, Culture and Sports (MECS-PEP) to train elementary and secondary school teachers in population education. Consisting of four lessons, this module aims to provide users with a knowledge of demographic concepts for teaching at the elementary level.

Lesson I deals with the definition of demography as a field of study. It also discusses the relationship of demography to other disciplines. Lesson II briefly explains the three demographic components, namely: birth, death, and migration; demographic processes such as fertility, mortality and migration; and some demographic measures. Examples are provided to illustrate the relationships of the concepts to one another. Lesson III focuses on the sources and uses of population data. Lesson IV illustrates how some demographic measures can be computed.

At the end of each lesson, self-exercises are provided to assess the user's understanding of the concepts introduced. The module also has a glossary of demographic terms.

Descriptors: *Demography; Population Education; Instructional Materials; Teacher Education; Philippines*

Source:
Population Education Program
Ministry of Education, Culture and Sports
Palacio del Governador, Intramuros
Manila
Philippines

12. Philippines. Ministry of Education, Culture and Sports. Population Education Program. *Determinants of population change.* Module no. 6 of "A module in population education for elementary and secondary school teachers." Second edition. Manila, 1984. 31 p.

This module aims to provide elementary and secondary school teachers with an understanding of the factors that determine population change. The module consists of three lessons: fertility, mortality and migration.

Lesson 1 deals with the concepts and factors related to fertility. It examines fertility trends in the Philippines by analysing three sets of information, namely: crude birth rates, gen-

eral fertility rates, and age-specific fertility rates. Also discussed are the factors that affect fertility and the factors that contribute to fertility differentials. Lessons 2 examines mortality trends in the Philippines. It discusses the factors that affect mortality and the factors that influence mortality differentials. The social effects of mortality are described. Lesson 3 focuses on the different aspects of migration. It identifies and discusses the two types of migration. It also discusses the factors that influence migration of the population, and analyses the socio-economic impact of migration on both the area of origin and area of destination.

After each lesson, a set of exercises is given to test the progress of the users. The answers to the exercises are given in the appendix.

Descriptors: *Population Dynamics; Population Education; Instructional Materials; Teacher Education; Philippines.*

Source:
Population Education Program
Ministry of Education, Culture and Sports
Palacio del Governador
Intramuros, Manila
Philippines.

13. Philippines. Ministry of Education, Culture and Sports. Population Education Program. *Population and demography, module no. 1.* Manila, Ministry of Education, Culture and Sports, and Contemporary Filipino Family Life and Population Education Project, De La Salle University. n.d. 81 p.

Specifically designed for college students in all levels and courses, this module seeks to provide users with a comprehensive knowledge of the elements and issues in population and demography. It consists of ten components. Each component has a statement of objectives and a theoretical background which presents the major concepts and issues related to population and demography. Each component includes: (1) a self-test and a corresponding answer key to assess the user's understanding of the concepts and issues; (2) questions for possible extensive discussions; and (3) some suggested learning activities to supplement the basic conceptual learning.

The components of the module include the following: (1) Module Component 1 presents an overview of the patterns of population growth in major parts of the world; (2) Module Component 2 deals with the facts and figures of population growth; (3) Module Component 3 focuses on the population growth rate of developing countries; (4) Module Component 4 analyses the present demographic situation in the Philippines; (5) Module Component 5 examines the value system influencing population control in the Philippines; (6) Module Component 6 discusses the rationale and purposes of family planning. It also presents the different methods of contraception, their effectiveness and acceptability; (7) Module Component 7 discusses the nature and philosophy of the Philippine Population Education Program. It also presents the population programmes and policies of other countries; (8) Module Component 8 presents the different population policies promulgated in the Philippines; (9) Module Component 9 analyses issues in population and development. It pays particular attention to the social and economic conditions of developing countries; and (10) Module Component 10 discusses the social, economic, and political consequences of rapid population growth.

Descriptors;	*Demography; Population Dynamics; Population Education; Instructional Materials; Higher Education; Philippines.*
Source:	Population Education Program Ministry of Education, Culture and Sports Palacio del Governador, Intramuros Manila, Philippines

14. Philippines. Ministry of Education, Culture and Sports. Population Education Program. *Resource book in population education for teacher education.* Trial edition. Manila, 1975. 332 p.

Intended for college instructors and students of teacher education, this resource book contains substantial background information about population study and population education.

Some chapters of the book deal with population dynamics. These consider all the principal aspects of demography, including the number and geographic distribution inhabitants, vital processes, migration and the growth of population, and the implications of rapid population growth. Discussed are some of the socio-cultural factors that influence population conditions, as well as those that result from demographic conditions.

This volume spells out the philosophy, objectives, principles, approaches, content, and instructional methods of population education. Also discussed are the instructional materials and some methodologies and techniques that may be used in the teaching of population education. Likewise, the importance of evaluation and samples of evaluative tools are presented.

An overview of population programmes and population policies in the Philippines and the world is presented in the last two chapters. The policies of other nations and how they influence the demographic situations and conditions are also dealt with.

The development and the impact of family planning in the Philippines is described.

Each chapter ends with a list of relevant publications.

Descriptors: *Population Composition and Dynamics; Population Policy; Instructional Materials; Teacher Education; Philippines.*

Source: Population Education Program
Ministry of Education, Culture and Sports
Palacio del Gobernador, Intramuros
Manila
Philippines

15. Stamper, B. Maxwell. *Population and planning in developing nations.* A review of sixty development plans for the 1970s. New York, Population Council, 1976. 265 p.

The aim of this book is to determine the attention and importance given to population growth in the overall strategy of developing planning. The national development plans of 60 Third World countries provide the basis for this study. Among these countries are India, Bangladesh, Pakistan, Nepal and Sri Lanka. Their plans are analysed for their use of demographic data, recognition of population problems and proposals for population policies. Chapter One of the study gives the findings of this analysis. Chapter Two consists of plan profiles for each country, giving demographic data and quoting sections from the plans concerning relevant problems and policies. The study focuses mainly on medium-range plans, most of which are five-year plans. Chapter Four consists of a concise overview of the general findings of this study including a comparison of the policies of the development plans with the official government position.

Descriptors: *Population Policy; Development Planning.*

Source: The Population Council
1 Dag Hammarskjold Plaza
New York, N.Y. 10017
U.S.A.

16. University of Colombo. Demographic Research and Training Unit. *Demographic atlas of Sri Lanka.* Colombo, 1980. 91 p.

This work, covering mainly growth and distribution of the population, its fertility and mortality, rests largely on material from the 1971 census of Sri Lanka and on complementary data from vital registration. There are 31 maps in this collection with explanatory tables. The maps cover all the important aspects of demography. Sex ratios, urban, rural and estate populations, age pyramids, family planning methods, user rates, school enrolment and employment by industry and district. Finally, the immigration and emigration rates are represented through maps and tables. This atlas is a "must" for every student of demography of Sri Lanka.

Descriptors: *Population Composition and Dynamics; Socio-economic Development; Sri Lanka.*

Source:
Demographic and Training Unit
University of Colombo
P.O. Box 1490
Colombo 3
Sri Lanka

SECTION TWO: POPULATION SIZE AND GROWTH

Population Size and Growth

Twenty-five selections are abstracted in this section. They deal with natural increase in population, the rate of natural increase, growth rate, doubling time and the demographic transition theory.

Majority of the publications provide statistical information on population size and growth, specifically, growth rate of natural increase, birth rate, death rate and migration rate. They explain that births, deaths and migration are the three components of population change. Natural increase is the surplus (or deficit) of births over deaths in a population in a given period of time while the rate of natural increase is the rate at which a population is increasing or decreasing in a given year, due to a surplus (or deficit) of births over deaths. This is expressed as a percentage of the base population. The growth rate is the rate at which a population is increasing (or decreasing) in a given year due to natural increase and net migration, expressed as a percentage of the base population. To make this more concrete, one publication summarizes the growth rate in population in South Asia. The rest present tables and graphs of the natural increase, rate of natural increase and growth rate of the countries covered in this abstract-bibliography one by one. About 10 entries discuss other vital components which play important role in population change. These include fertility, mortality, nuptiality rates and trends.

While the majority of the entries present the statistical and demographic data through tables and charts, a few concentrate on the theoretical analysis of how population grows. These publications analyse the factors that contribute to natural increase and population growth and identify five types or patterns of population growth. These include high birth and death rate, high birth and declining death rate, high birth rate and fairly low death rate, declining birth rate and fairly low death rate and fluctuating low birth rate and a stable low death rate. Four entries also present in detail the principle contained in the theory of demographic transition which holds that population passes through different stages of growth. Specifically, they state that a population's fertility and mortality will both decline from high to low levels as a result of economic and social development. The decline in mortality usually precedes the decline in fertility, resulting in high population growth during the transition period.

About six of the selections go beyond describing the trends and levels of population growth by showing their effects or consequences on various aspects of quality of life. The entries analyse the impact of rapid population growth on the environment, socio-economic situation, political situation and agricultural changes. One of these selections which explores the political consequences of rising population growth states that rapid population growth strains the capacity of social, economic and political institutions and heighten the potential for political unrest and turbulence. In terms of agriculture, another entry points out that increased investment in agriculture does produce changes in population in the form of migration and changes in the approach to land. Finally, about four selections show how some countries have attempted to solve this problem by formulating policies in family planning, indicating what family planning services have been made available and the resulting rate of contraceptive prevalence.

In population education, the topic of population growth, size and changes are suitable contents for enriching various content areas in mathematics, science, geography and social studies. In mathematics, relations and graphs can be used in showing birth rates and death rates. For example, taking the years from 1960 to 1968, the years may be located on the X-axis and the birth and death rates on the Y-axis. The study of sets and subsets can be applied to members of the family and its size. Simple addition and subtraction can be used to show how school population size changes. In science, population growth is described through plant, animal and human reproduction. Science shows how organisms multiply and point out the factors that cause this multiplication. In geography, population growth is related to the physical basis of geographical distribution. Population growth can be tackled in social studies at various levels or types of population groups. First, it deals with increase in family size with the objectives of showing the composition of families and how births and deaths contribute to the change in family size. Then it goes on to population change in school and community aimed at developing one's understanding about the size, composition, groups, sex, age, distribution and characteristics of various types of population in the community.

17. Ali, S.M. "Pakistan sets new targets, beyond 2000, state of the world population", *Populi* 8(2):26-28, 1981.

In this article, the author sketches the revival of the population planning programme in Pakistan. The late Premier, Ali Bhutto, had virtually shelved the programme in a bid to please the orthodox religious factions. The Population Division has been re-activated within the the Ministry of Planning and Development and the Government has set a target for reduction of the country's population growth. "It is our duty as rational being to consider the adverse effects on food resources when our population will have doubled", says General Zia-Ul-Huq. The Population Division is working towards reducing the growth rate from an estimated 2.9 per cent (July 1980) to 2.7 per cent at the end of three years. The Administrative then Head of the Programme, Dr.(Mrs.) Inayatullah, believes that the programme will have a substantial impact on population growth in Pakistan over a longer period of 10 years between 1980 and 1990.

Descriptors: *Population Policy; Pakistan*

Source: United Nations Fund for Population Activities
220 East 42nd Street
New York, N.Y. 10017
U.S.A.

18. Arnold, Fred and others. *The demographic situation in Thailand.* Hawaii, East-West Center, 1977. 35 p.

The paper is one of the series of reports on the demographic situation in selected Asian countries. Its purpose is to provide a summary of current demographic conditions in Thailand and recent events in the components of population change.

The paper reviews basics aspects of Thailand's demographic situation from the first census in 1911 to the present. The growth rate has been high throughout most of this century and has accelerated, particularly since World War II, as mortality has fallen rapidly to low levels. Recently, fertility has begun to drop substantially, too, owing mainly to a fall in marital fertility. Age at marriage is already quite high by Asian standards and has changed little in recent decades. The fall in marital fertility has been paralleled by rapid expansion of family planning services. Fertility is lower in urban than in rural areas, with age at marriage generally higher and contraceptive use more pervasive in the former than in the latter. For reasons not entirely clear, the decline of fertility seems especially rapid in the Northern region of the country.

The urban population of Thailand is overwhelmingly concentrated in the Bangkok Metropolitan Area. Despite the rapid growth of Bangkok, however, the distribution of population among regions has changed little since 1947, and in fact the proportion in the Central Region, which contains

Bangkok, has declined slightly. Presumably, this change has occurred because migration from other regions has been more than offset by lower fertility in the Central Region.

Population projections show that Thailand will have to plan for a population by the year 2000 that is at least half again as large as its 1970 population of somewhat over 36 million, even if birth rates drop precipitously. Constant fertility would imply a population of 100 million by the end of the century.

Descriptors: *Population Composition and Dynamics; Thailand*

Source: East-West Center
Honolulu, Hawaii
96848
U.S.A.

19. Concepcion, Mercedes. "Asia diverse and populous", *Populi* 8(3): 18-35, 1981.

The population of South Asia was 1422 million in 1980. By 2000 A.D., it is expected to rise to 2205 million. Of the countries of South Asia, Bangladesh, India and Pakistan had the highest densities with 532, 188 and 87 persons per square kilometre respectively in 1975. The growth of the Asian population is governed mainly by the differences in the levels of birth and death rates. Table 5 shows the net effects of fertility and mortality on the age composition of the population. South Asia will continue to have a larger proportion of children than East Asia. Among 13 countries which considered their rates of growth of population too high, only Nepal and Sri Lanka had populations below 15 million in 1980. At the beginning of the 1960's, only two countries in Asia - India and Pakistan - had population policies geared towards lowering population growth. Now family planning services are offered in most Asian countries, but the erratic quality of the services prevents their full utilization. In many of the countries of South Asia, five-year and 10-year plans have been formulated for reducing mortality and morbidity. There has also been increasing emphasis on Primary Health Care. Twenty-five Asian governments directly support family planning programmes and a number of countries have been able to lower their birth rates. The dramatic decline of fertility in Sri Lanka has occurred against a backdrop of high literacy and an intensively structured health programme. There are substantive differences in the perceptions and policies of Asian governments with respect to population growth. In fact, the governments attach importance to demographic variables in their analysis of development programmes.

In 1974-1975, the Cholera Research Laboratory noted unusual demographic fluctuations probably as a consequence of severe food shortages in 1974. Normal crude birth rates averaging about 45 per 1000 declined to 40 per 1000 and the baseline crude death rate of about 15 per 1000 increase to 20 per 1000 (1974-1975). However, the performance of the National Family Planning Programme improved substantially in 1975 over 1974. Some population projects under non-Health Ministries also began field activities in 1975. Support for the National Family Planning Scheme came from Bangladesh resources as well as through foreign assistance. Governments invested large sums on family planning as a means of reducing the rapidly increasing population.

Descriptors: *Population Change; Demographic Statistics; Demographic Analysis; Asia*

Source:
Populi
UNFPA
220 East 42nd Street
New York, N.Y. 10017
U.S.A.

20. Concepcion, Mercedes B. *The Philippine population: trends, prospects, problems.* A paper presented at the 6th National Population Welfare Congress, Philippine International Convention Center, 17 November 1983. 40 p.

It is unlikely that the Philippines will achieve its goals of a replacement level of fertility by the year 2000.

Several indicators suggest this, among them the following: the higher than expected population growth rate, i.e. 2.68 per cent, revealed by the 1980 census; the unchanging child-woman ratio between the period 1975 and 1980; the relatively high total potential of growth arising from the country's young population (the 1980 census reports that 42 per cent of the population is below age 15). If necessary measures are implemented, however, the country might just be able to catch up.

These observations are contained in a paper which discuss trends in fertility, mortality and migration, including the problems and prospects facing the National Population Programme. Data are presented for both national and regional levels. The following summary touches mostly on the national level:

1. For 1975, the country's birth and death rates were estimated at 34.8 and 9.3 per 1000 population down from 46 births and 13.7 deaths per 1000 population in 1960. The decline in the death rate can be expected to continue, thereby partially offsetting future declines in the birth rate. Of the three processes - fertility, mortality and migration - international migration remained a negligible factor in the Philippines' total population change.

2. According to the 1980

census, the country's age composition is structured as follows: 42 per cent of the population is below 15 years; 54.6 per cent is between ages 15 and 64; and 3.4 per cent is aged 65 and over. The median age of the Philippine population is 18.6. Among the regions, Central Mindanao (Region 12) has the youngest median age, 16.6 years, and Metro Manila the oldest at 21.6 years.

3. The sex ratio conforms to the global patern where men outnumber the women. The national sex ratio for 1980 stands at 101. Except for Metro Manila, the Ilocos and Central Luzon, the rest of the regions had more males than females. In all of the country's censuses, it was only in 1970 when the national sex ratio (99) was in favour of the female population.

4. The percentage of urban dwellers rose by more than 10 percentage points between 1948 and 1980, i.e. from 27 per cent.

5. Between 1970 and 1975, two persons out of 100 moved from one region to the other; between 1975 and 1980, three persons out of 100 did. During the 1970-1980 decade, Metro Manila, Southern Tagalog and Northern and Southern Mindanao were consistently in-migration area. Metro Manila, particularly, appears to have the strongest attraction for migrants. Meanwhile, notable shifts were noted for two regions in 1980; Central Luzon changed status from in- to out-migration area while Central Mindanao, which used to be an out-migration area, became an in-migration area.

6. The drop in the total fertility rate from 6.5 births per woman in 1960 to 5.2 in 1975 reflects wide-spread delay in age at marriage in the early 1960s as well as changing reproductive behaviour within marriage. The latter trend is supported by the decline in marital total fertility rate from 9.7 births per married women in 1965 to 8.7 in 1975, or a decline of 11 per cent.

7. Among the regions, fertility in Metro Manila has been falling since 1960s. In general, the regions closest to the capital and those exposed to modernization showed lower fertility.

8. Mortality decline has been continuous since the beginning of the 20th century. The decline was not uniform, though. The increase noted in life expectancy at birth occurred in stages: between the two world wars (1908 and 1938), the increase averaged 0.42 year; a rapid increase was noted for the period 1948-1968 with the annual addition

of 0.71 to 0.82 year; and the years 1968 to 1980 showed again slow yearly gains of about 0.24 years.

9. The availability of family planning services increased from a handful of family planning clinics in the mid-1960s to about 3,800 by the end of 1982. Similarly, the number of acceptors rose from 2,288 acceptors (as reported by family planning clinics) to 432,260 in 1982.

10. Contraceptive prevalence rate was placed at 46 per cent by the 1980 Community Outreach Survey (COS). Two surveys in 1978, the first COS and the Republic of the Philippines Fertility Survey, estimated contraceptive prevalence to be 48 per cent and 38 per cent, respectively. The difference in these rates may be due to the larger prevalence for withdrawal reported in the 1978 COS. It must be kept in mind that the COS was limited to the rural areas and may be subject to the effects of the Outreach Project.

The author concludes that the integration of population objectives into development policies, plans and programmes will not only usher in further fertility declines but will also bring about sustained fertility.

Descriptors: *Population Composition and Dynamics; Population Policy; Philippines*

Source:
National Economic and Development Authority
Amber Avenue, Pasig
Metro Manila
Philippines

21. Economic and Social Commission for Asia and the Pacific. *Comparative study of population growth and agricultural change - case study of Sri Lanka.* Bangkok, 1975. 112 p.

This study was undertaken as partial compliance with a request made to the Secretary of ECAFE to explore the effects of population pressure in delaying the achievement of development goals. It was designed to assist in clarifying the relation between poulation pressure and agricultural change through time series analysis. The study begins with an introduction to Sri Lanka, covering its geography, climate, history, people, administrative units and the economy. The problems of population change including internal migration are then discussed and the relationship between agriculture and population change is examined. The findings reveal that the increased investment in agriculture did produce changes in population in the form of migration. The increase in population in the wet zone brought about changes in the approach to land. However, these two variables are part of a complex which includes resources, values, ideology, levels of integration, and reciprocal services.

Descriptors: *Population Change; Agricultural Development; Sri Lanka*

Source:
ESCAP Clearinghouse and Information Section
Population Division
U.N. Building
Rajdamnern Avenue
Bangkok 10200
Thailand

22. Economic and Social Commission for Asia and Pacific. *Demographic trends and policies in ESCAP countries.* Bangkok, 1979. 75 p. (Demographic estimate series no. 1)

This publication carries demographic data regarding India, Pakistan, Nepal, Sri Lanka and Bangladesh. Social indicators for 1970 are given for each country together with intervening data and 1978 estimates. The indicators are also shown for the following countries Bangladesh, India, Nepal, Pakistan, Sri Lanka. The population policies of each country are also discussed. For example, the population policy for India declares its current goal as "to reduce the crude birth rate to 30 by the end of the Five Year Plan 1974-1979 and attain an annual growth rate of 104 per cent by 1986".

Descriptors: *Demographic Statistics; Bangladesh; India; Nepal; Pakistan; Sri Lanka*

Source:
ESCAP Clearinghouse and Information Section
Population Division
U.N. Building
Rajdamnern Avenue
Bangkok 10200
Thailand

23. Economic and Social Commision for Asia and the Pacific. *Population of India.* Bangkok, 1982. 413 p. (Country monograph series No. 10)

The purpose of the monograph is the same as described earlier in "POPULATION OF BANGLADESH". The introduction outlines the geographical features of India, its political system, transport and communications and economic development. Then changes in size and growth of population are presented vis-a-vis the theory of demographic transition. The distribution and growth of population is given by administrative divisions, zones and population denominations. The subject of urbanization is dealt with in the context of development. Sex composition, age structure and marital status are also given. Trends and differentials in fertility, nuptiality trends and differentials and then population policy and the programme of work are given in details. Population projections are presented up to 2001 A.D. The socio-economic impact of population growth is examined from Chapter 10 onwards under the captions "Population and Employment", "Social Aspects of Population", "Population Growth and Food Supplies", "Land and Population" and "Study of Women in India". Lastly, the demographic data are presented and their quality evaluated. There are a number of tables and figures to supplement the information in this comprehensive publication.

Descriptors:	*Population Change; Socio-economic Development; Population Pressure; India*
Source:	ESCAP Clearing-house and Information Section Population Division U.N. Building Rajdamnern Avenue Bangkok 10200 Thailand

24. Economic and Social Commission for Asia and the Pacific. *Population of Nepal.* Bangkok, 1980. 219 p. (Country monograph series no. 6)

The monograph begins with a short introduction to the mountainous independent kingdom in the valley of the Himalayas. The authors then proceed to describe population growth and distribution of population, age and sex composition, ethnicity and religion, marital status, mortality, fertility, health, law and education. However, a systematic analysis of population trends in Nepal is handicapped by the lack of adequate and reliable data. In Nepal, there is no specific legal provision which permits sterilization to be performed therefore, family planning in Nepal is more difficult than in other South Asian regions. The surveys undertaken before this monograph was written indicate that migration has been an important demographic phenomenon in Nepal. According to the demographic sample surveys, life expectancy in Nepal is low - 46 years for males and 42.5 years for females. Although Nepal has conducted seven censuses in the 20th century, it has not been possible to obtain accurate data. This publication gives an analysis of the population of Nepal, taking into consideration the paucity of data.

Descriptors:	*Population Change; Socio-economic Development; Nepal*

Source: ESCAP Clearinghouse and Information Section
Population Division
U.N. Building
Rajdamnern Avenue
Bangkok 10200
Thailand

25. Economic and Social Commission for Asia and the Pacific. *Population of Sri Lanka.* Bangkok, 1976. 397 p.(Country monograph series no. 4)

This book begins with a description of Sri Lanka in respect of location and area, physical features, climate and rainfall, historical sketch, people, the administrative system, mineral resources, transport and communications and the economy. The size and growth of the total population and the geographical distribution of population are appraised by the ESCAP Secretariat. Throughout the 100 year period (1871-1971), 58 per cent lived in the wet zone areas but there was a gradual increase in the proportion of people living in the dry zone through a deliberate policy of migration. Subjects dealt with by Sri Lankan authors are internal migration, marital status, mortality, fertility, family planning, population growth and education development, population growth and health needs, economic activity, families and housing, nutrition and food supply, law and population dynamics, the status of women, sources of demographic data and evaluation of data. The ESCAP Secretariat gives details of age and sex composition, ethnicity and religion and provides statistical tables. Annex II provides an insight into the accuracy and reliability of data.

Descriptors: *Population Composition and Dynamics; Socio-economic Development; Sri Lanka*

Source: ESCAP Clearinghouse and Information Section
Population Division
U.N. Building
Rajdamnern Avenue
Bangkok 10200
Thailand

26. Gunatilleke, Godfrey and Suranjith P.F. Senaratne. "Some demographic aspects of integrated rural development," *Marga* 4(1): 56-82, 1977.

The article opens with a discussion of patterns of demographic change - contrasting between developed and developing countries. These demographic situations are next analysed within the macro-demographic framework. Variations in the age structure of the population, agriculture and demographic change, the mass market and the rural economy, the rural-urban balance, the impact of socio-economic changes on demographic trends and demographic responses at the micro level are other themes that are discussed. The authors conclude that demographic models derived from industrialized societies have little relevance for developing countries. In regard to population growth, demographic situations call for different combinations of policies and strategies. There is mass youth unemployment. As the population trends in the rural sector are the main determinants of the overall population trend, demographic objectives and policies form a critical element in an integrated rural development strategy. The critical focus is not population change, but the relation between population and resources.

Descriptors: *Population Change; Population Pressure; Natural Resources; Sri Lanka*

Source:
The Marga Institute
61 Isipathana Mawatha
Colombo 5
Sri Lanka

27. Immerwaher, George. *How many people in Sri Lanka?* Colombo, Colombo Apothecaries, 1979. 58 p., appendices.

The book begins with an assessment of the growth of the population of Sri Lanka from 1871 to 1971. The author then goes on to compare this growth with demographic transition in Third World and developed countries. The question of birth control and the methods used are also discussed as well as the extent to which the different races in Sri Lanka practise birth control. The fear of the majority that Tamils and Moors will seek higher birth rates to overtake the Sinhalese and the effects of this fear on the family planning programme are also discussed. The problems of poverty and population growth and reduction of population through international migration are analysed. It is found that delayed marriage, more than contraception, has been responsible for the decline in the birth rate. Only about one-fourth of Sri Lankan women use effective birth control methods. The appendices give highlights of the World Fertility Survey Data for Sri Lanka.

Descriptors: *Population Change; Fertility Decline; Sri Lanka*

Source:
The Colombo Apothecaries Ltd.
Colombo 1, Sri Lanka

28. "India: population growth in the 1970s", *Population and Development Review* 7(2): 325-334, June 1981.

The author begins by drawing attention to the fact that India's population exceeds 15 per cent of the world's total, but it lives on less than 2.5 per cent of the globe's total land area. Average levels of income place the country among the poorest nations. The 1981 Census indicates an increase of 24.75 per cent in the ten-year period since the 1971 census. The outstanding feature of India's population dynamics is not so much the high level of the rate of growth but the size of the population to which growth accrues. Table 2 shows population size, growth and density in the status and Union territories 1971-1978. Where growth rates have declined, fertility declines provide the prime explanation for the change. The article ends on a warning note - "the still accelerating rates in large segments of the Indian population should caution against too confident predictions of an impending decline in the tempo of population growth".

Descriptors: *Population Change; India*

Source: The Population Council
1 Dag Hammarskjold Plaza
New York, N.Y. 10017
U.S.A.

29. Jawalak Rachapaetayakom."Population projection and their use for National Development Planning in Thailand," in: Robinson, W.C., ed. *Studies in Thai demographic-economic planning.* Bangkok, National Economic and Social Development Board, 1980, p.7-34.

To improve the quality of life is to reduce population growth rate through education and employment; and to establish measures for an optimum population distribution pattern, which entails government re-settlement of large population blocs. The document records basic population projections, based on high, medium, and low fertility and increased life expectancy, and publishes tables of projected crude birth rates and crude death rates (ranging from 34.98 - 24.34 and 7.11 - 7.07, respectively) and population projected by age, and sex . Future population trends are summarized tabularly, and it appears that the Thai population will continue to increase rapidly from 36.4 million in 1970 to 63.5 million in 1990 if fertility remains high, and to 60.3 and 56.7 million, for medium and low fertility estimates respectively. The three sets of population projections generally indicate a further increase in both the absolute and relative excess of males over females in the future population. The number of children under 15 years of age will grow rapidly. The total number of population within the working ages will double by 1990. And the older population is expected to increase by 1.8 million by 1990. The level of urbanization of Thailand as a whole is 19.3 per cent (1972), and the proportion is expected to increase only slightly from 20.5 in 1977 to 21.2 in 1981. Also included in this study are trends in school enrollments and other educational trends and labour force projections which tie population growth to economic development.

Descriptors: *Population Projections; Socio-economic Development; Thailand*

Source:
Population and Manpower Division
National Economic and Social Development Board
962 Krung Kasem Road
Bangkok 10100
Thailand

30. Kannangara, Nimali. "Population growth," *Loris* XIV (2): 106-107, December 1976.

The main theme of this article is that in pursuit of man's needs he has utilized resources from the environment that will soon be exhausted. Everything is increasingly in short supply. The world's land extent is finite. Not all of it is arable. In less than 35 years the population of Sri Lanka will double if the present rate of natural increases continues and other factors remain equal. Our only chance is to reduce the rate at which the quantum of basic human needs is increasing. Population growth must match this process by ensuring that man merely replaces himself and ceases to multiply at the rate he does now. Fundamental moves must be made to conserve the environment and its resources by limiting the growth of population. Attention has to be given to the problems of forest thinning, reduction of underground water resources, reduction of grazing grounds, decimation of livestock and manure.

Descriptors: *Population Change; Population Pressure; Natural Resources; Sri Lanka*

Source:
Wild Life and Nature Protection Society of Ceylon
Chaitiya Road, Marine Drive
Fort, Colombo
Sri Lanka

31. Khan, Akhter Hasan. "Our demographic profile", *Pakistan and Gulf Economist* 10-16 December 1983, p.8-15.

The author bases this article on the 1981 census in Pakistan. He says that a comparison of the demographic features of South Asian countries reveals that Pakistan and Bangladesh have the highest rates and a higher rate of population growth than India, Sri Lanka, Indonesia Malaysia. A table of the article gives population projections up to 2001. Pakistan is the ninth most populous country in the world (Pakistan's population has had a higher growth rate than Bangladesh, although Bangladesh has greater density). Pakistan is a male-dominated country as the average ratio of males per 100 is 110. This may be due to better care for sons. Age and sex composition is given in detail. Pakistan's low labour force participation rates stem from low female participation. The combined annual growth rate of urban population during 1972-1981 was 4.2 per cent compared with 4.8 per cent in the two preceding decades. It is surprising that India has a smaller ratio of urban population. The author concludes his article with a plea for provision of basic needs for the entire population and for a reduction of the population.

Descriptors: *Population Composition and Dynamics; Pakistan*

Source: Mrs. K. Sajjad's Publications
Shafi Court
Marewetter Road
P.O. Box 10499
Karachi 4
Pakistan

32. Philippines. Ministry of Education, Culture and Sports. Population Education Program. *Demographic transition.* Module no. 4 of "A module in population education for elementary and secondary school teachers". Second edition. Manila, 1984. 18 p.

This module focuses on the theory of demographic transition. It presents in detail the principle contained in the theory, and analyses the relevance of the theory to the Philippine situation.

The theory of demographic transition holds that population passes through different stages of growth. The first stage is characterized by high birth rates and high fluctuating death rates, leading to a stationary population. In the second stage, there is an imbalance between births and deaths due to declining death rates and continued high birth rates. The decline in the death rate is brought about by improved nutrition, health, and living standards. The third and final stage is characterized by both fertility and mortality at low levels. Death rates are low, and birth rates are normally low to moderate.

With regard to the demographic experience in the Philippines, the module points out that rapid population growth experienced in this country has been due to rapid decline in death rates without a corresponding decline in birth rates.

The decline in death rate, moreover, has not been accompanied by any major economic development. Thus, it remains to be seen whether industrialization or economic development will cause a decline in the birth rate of this country, as it has in developed countries.

Descriptors: *Demographic Transition; Population Education; Instructional Materials; Teacher Education; Philippines*

Source: Population Education Program
Ministry of Education, Culture and Sports
Palacio del Governador
Intramuros, Manila
Philippines

33. Philippines. Ministry of Education, Culture and Sports. Population Education Program. *The growth of population: world and Philippines.* Module no. 3 of "A module in population education for elementary and secondary school teachers". Second edition. Manila, 1984. 28 p.

The main objective of this module is to provide users with a clear understanding of the concepts of population and growth and trends.

The module points out that population growth depends largely on the number of births and deaths. Migration may also affect population size but only for short periods of time. The module also presents five types of population growth and identifies the countries that exhibit each type of growth.

The first type is characterized by high birth and death rates resulting in slow population growth. Today, the only area with this pattern is Central Africa, although data for this region are not reliable. A high birth rate and a high but declining death rate are the characteristics of the second type. Examples are countries in Northern Africa and most of Asia, with the exception of Japan. The third type is characterized by a high birth rate and a fairly low death rate resulting in a population that is growing more rapidly than anywhere else in the world. South Africa, Latin America and most of the developing countries, including the Philippines belong to this type.

The fourth type is characterized by a declining birth rate and a fairly low death rate. South America, the Balkan Peninsula, and the Soviet Union represent this type of growth. A fluctuating low birth rate and a stable population, characterize the fifth type. This is represented by Japan, Australia, New Zealand, and most countries in Europe.

The module also describes two frameworks for analysing the causes of world population growth. The trends and patterns of growth in the developed and less developed regions of the world are examined. Six sets of exercises are incorporated in the module.

Descriptors: *Population Change; Population Education; Instructional Materials; Teacher Education; Philippines*

Source:
Population Education Program
Ministry of Education, Culture and Sports
Palacio del Governador
Intramuros, Manila
Philippines

34. Philippines. National Census and Statistics Office. "Demography," in: *The Philippine yearbook.* Manila, 1983, p. 93-173.

The Philippine yearbook compiles socio-economic information about the country, tracing its demographic, social, cultural and economic progress. It contains a section on Demography which presents facts and figures on the growth of the population, its distribution and its demographic and social characteristics. The vital components of population change, namely; fertility, mortality, nuptiality, and migration are also dealt with. Data presented are primarily based on the 1975 and 1980 population censuses. Other sources of data are the vital registration system, the 1960 and 1970 population censuses and population projections prepared by the Philippine National Census and Statistics Office.

The usefulness of the yearbook's section on demography lies in its presentation of the latest available population facts and figures. It also describes the growth of the country's population from the early times to the present and gives a possible direction of future population growth through a detailed set of population projections.

Descriptors: *Population Composition and Dynamics; Population Projections; Philippines*

Source:
National Census and Statistics Office
Ramon Magsaysay Blvd. St. Mesa
Manila
Philippines

35. Population Information Centre. *Population statistics of Sri Lanka.* Colombo, 1982. 12 p.

The pamphlet provides statistics up to 1981 of population in Sri Lanka. The tables show population according to census years and density, rates of birth and death, migration, sex composition and population according to districts and age groups (0-14), (15-16) and (65 and over), ethnic groups, religious groups, dependency rates and literacy rate for 1981. Marriages in Sri Lanka from 1970, infant and maternal mortality rates and population according to urban, rural and the estate sector are also shown. Finally, life expectancy at birth is represented from 1946-1971. Some important statistics are - Crude birth rate (per 1000) 27.6 (1980); crude death rate 6.1 (1980) (per 1000); national increase 21.8 (1970-1975); infant mortality [(per 1000 live births) 42.0 (1980); life expectancy 69.0 years (1980) and density of population per square kilometre persons (1981)]. The Population Information Centre feels this publication will be useful to research workers, students, population projects' personnel and even journalists.

Descriptors: *Demographic Statistics; Population Projections; Sri Lanka*

Source: Population Information Centre
No. 231 De Saram Place
Colombo 10
Sri Lanka

36. Population Reference Bureau. *World population growth and response 1965-1975 - a decade of global action.* Washington, D.C., 1976, p. 89-91 (Nepal).

Nepal, a small sub-Himalayan kingdom, had a population of 12.6 million in 1975 or 2.5 million more than in 1965. The birth rate (1975) is 43 per 1000 population and the death rate 20 per 1000 population. Nepal would have twice its present population in 30 years. Nepal's most urgent social problem is keeping its population from expanding faster than the development of its agriculture and industry. Although only about 30 per cent of Nepal is cultivable, most of the labour force is engaged in agriculture. Even at present, the standard of living is generally low. Per capita income is only about 90 a year. The literacy rate is estimated at 13 per cent and life expectancy is 44 years.

The Government of Nepal has given increasing budgetary support to family planning through the past decade. Yet transport is difficult through the rugged terrain, high illiteracy rates hamper getting the message to potential acceptors and there is a scarcity of doctors and trained personnel. USAID is the major donor to Nepal's family planning programme. IPPF and FPAN are also in the field supporting the government. Nepal has had good initial success in introducing male sterilization and pills for females and it is hoped that the family planning programme will contribute in a more real sense to stem the tide of increasing population.

Descriptors: *Population Change; Nepal*

Source: Population Reference Bureau
777 Fourteenth St., Suite 800
Washington, D.C. 20005
U.S.A.

37. Qureshi, S.A. and M.L. Qureshi. "Population," in: *Brief introduction to Pakistan.* Islamabad, Pakistan Institute of Development Economics, 1980, p. 16-20.

Pakistan's estimated population on 1st January 1979 was 77.9 million compared with 33.7 million in 1951, showing an increase of 131 per cent. The main reasons for the increase were - (i) a programme reduction in the death rate; and (ii) continuance of a high birth rate. The trend of population increases at the various censuses is shown in tables. The current rate of population growth in Pakistan is one of the highest in the world. The provisional breakup of population based on the 1972 census and the population by rural-urban areas are also discussed. In 1979, the rural population was 56.2 million (72 per cent) and the urban population 21.7 million (28 per cent). The proportion of the population living in rural areas is continually on the decline mainly owing to rural-urban migration. The population of urban areas has increased at an average of 2.7 per cent. The density of population in the country according to the 1972 census was 82 persons per square kilometer. There are wide variations in the densities in the provinces between the censuses of 1961 and 1971. The net addition to the labour force is estimated at 3.84 million during the current Fifth Five-Year Plan.

Descriptors:	*Population Change; Pakistan*
Source:	Pakistan Institute of Development Economics P.I.D.E. Post Box 1091 Islamabad Pakistan

38. Roberts, G.W. *Note on a population projection for Sri Lanka to 2006 A.D.* Colombo, University of Colombo, 1981. 17 p. (Working paper no. 1)

This working paper contains population projections from 1971-2006, presented according to age and sex. Birth rates, death rates and rates of natural increase 1971-1976 and 2001-2006 according to falling fertility, constant mortality and some emigration, are also given. Population projections for developing countries have several advantages. "First, the future estimates of population have been taken into consideration in setting various development targets and secondly, a consideration of the size of the future population has led to formulation of policies for modelling the population growth" (ESCAP). These projections indicate that dramatic alterations in growth prospects are unlikely in the next generation, although natural increase will be down to about half of its 1971-1976 level.

Descriptors: *Population Projections; Sri Lanka*

Source: University of Colombo
P.O. Box 1490
Colombo 3
Sri Lanka

39. Sanderatna, Nimal. "Socio-economic variables in Sri Lanka's demographic transition; an analysis of recent trends," *Central Bank of Ceylon staff studies* 5(1): 157-189, April 1975.

This article highlights the fact that the first stage of Sri Lanka's demographic development is the common experience of pre-modern societies, high birth and death rates in the 19th century. The second stage illustrates what Davis has called "The amazing decline of mortality in under-developed areas". Health policies and the success of the D.D.T. spraying against malaria, building of roads and hospitals, contributed to this improvement. The increase in the young population intensified the problem of finding jobs for school leavers. By 1971, the socio-economic impact of the population explosion was of an order which threatened the entire social system. The deterioration of economic conditions was particularly rapid but socio-cultural factors were such that there was resistance to birth control. However, postponement of the age of marriage helped Sri Lanka to reach the third stage of a relatively slow population growth. Since several of the socio-economic variables identified as having a bearing on fertility are likely to continue their influence, the decline in fertility is likely to continue. Owing to this, there could be an expectation of achieving low population levels from the third quarter of this century.

Descriptors: *Demographic Transition; Sri Lanka*

Source: Bank of Ceylon
Colombo 1
Sri Lanka

40. Sri Lanka. Department of Census and Statistics. *Census of population and housing, Sri Lanka 1981.* Population tables based on a 10 per cent sample. Colombo, 1982. 56 p. (Preliminary release no. 2)

This publication contains tables on age distribution, marital status, literacy, school attendance, education and place of birth. Section (1) contains tables giving some basic data for districts while Section (2) contains more detailed tables for the whole island. A brief analysis of the main results of the census indicating significant changes since 1971 is also included. The numbers shown in the table are inflated figures which provide estimates of what the actual numbers would have been if the tables were based on the full or 100 per cent data. Significant features of this census are a slight excess of males (104 males to every 100 females). The high population of young persons has declined from 30.0 in 1971 to 35.3 in 1981. This can be attributed to the decline in the birth rate recorded. A higher average age at marriage for females (now 24.4 years), an increase in the number of currently married males and a great increase in literacy are other significant features of the census data.

Descriptors: *Demographic Statistics; Population Census; Housing Census; Sri Lanka*

Source:
Department of Census and Statistics
No. 6, Albert Crescent
Colombo 7
Sri Lanka

41. University of the Philippines. Population Institute. *The Philippines: profiles, problems, prospects on population and family planning*. Manila, 1984. 72 p.

This fact book provides statistical information on the Philippine population, specifically population growth trends from 1951-1980, age structure, population density, level of urbanization, volume of inter-regional migration and estimated rates of birth, death and natural increase from 1903 to 1980. The first chapter puts the Philippines in perspective by providing comparative data on other developing and developed countries. The second chapter focuses on the Philippines while the third presents the demographic profiles of the different regions of the country. Information on family planning in the country and the demographic prospects up to the year 2000 are given.

Data presented reveals that the Philippine population in 1980 exceeded 48 million, with the 1975-80 intercensal increase amounting to 6 million, from 42 million in 1975. High but slowly declining birth rates interacting with steadily increasing mortality rates have resulted in increasing numbers of Filipinos every year. Every minute, on the average, three Filipinos are born while one person dies. The net result is two Filipinos added in that same minute. Adding up a day's increment results in 3,570 more Filipinos daily and nearly 100,000 more monthly.

Descriptors: *Demographic Statistics; Population Dynamics; Philippines*

Source:
Population Institute
University of the Philippines
Padre Faura, Manila
Philippines

SECTION THREE: AGE AND SEX COMPOSITION

Age and Sex Composition

This section deals with the most basic characteristic of a population - its age and sex composition. The age and sex composition of a population, which refers to the number or proportion of males and females in each group, comprises one of the basic inputs in development planning activities. Population composition determines a number of planning concerns, particularly those dealing with the population in school ages, the working ages or the stages in life when households are formed. Population structure by sex influences fertility, mortality and migration which tend to occur with considerable frequency at particular ages. In turn, these demographic processes affect the population growth rate.

Seventeen selections dealing with four major sub-topics are abstracted in this section. Seven of the 17 entries deal with age-sex structure in general. Four focus on the description of the profile of the youth and children population. Two entries deal with the aged or elderly members of the population and four selections on the profile of women as part of the sex composition of a population.

The seven entries which deal with age-sex structure present vital statistics about the population by age groups, median ages of the population, age-sex pyramid, dependency ratios and age distribution by location. The analysis by some of the selections regarding the effects of age composition on the school-going population, the working or dependent population and those entering family formation make these vital statistics meaningful. Sex ratio is also seen to affect fertility, migration rate, mortality and labour force. Two of the seven entries concentrate on a discussion of the relationship between age and sex structure with labour participation and school population projections respectively. According to these two entries, there has been an increase in the size of the female labour participation in Asia and an increase in school-age composition.

The four entries which deal with the profile of the youth and children as part of the age composition approach its discussion from various demographic perspectives. The selections show the size, growth and composition of the youth population in terms of age-sex composition, projections, fertility behaviour, urban-rural distribution and migratory behaviour. Data suggest that most Asian countries have a young population which accounts for a sizeable proportion of the dependency ratio. The youth is also described in terms of geographical locations, literacy, education and employment. In addition to the vital statistics, four entries discuss the situation, problems and the welfare of the youth in terms of education, health and nutrition, economy, labour and social aspect.

Demography and its bearing on population education

The two entries which discuss the situation of the elderly members of the population focus on the problems and existing policies, programmes and social services for the aged. While the aged generally comprises a small percentage of the population, in some countries like Sri Lanka the number of old people increased in 1981. These entries conclude that policies, programmes and social services for the aging population are not organized and extensive and in some developing countries, practically non-existent.

Finally, the four entries on women include both a description and analysis of their demographic profile and their participation in education, health, literacy, legislation and labour force. Of the six entries, four analyse female labour participation revealing how they are subjected to discrimination and poor working conditions. The rest present the demographic profile of the women by age groups, marital status, ethnic groups, crude death rates, fertility and female infant mortality, enrollment in school, drop-outs participation rate in education, etc.

Data on age-sex projections will be very useful in determining the size of population to be educated. For example, an increase in fertility will mean an increase in school-going population, data which can be used in population education programmes to show the effects of rapidly growing school-going population on the facilities available in schools and the number of teachers vis-a-vis number of students. Information on the relationship between age-sex structure and labour force can enrich population education contents by showing how a larger ratio of youth and dependents exert a heavy burden on the employed sector. With regard to the situation of the elderly population, such information can serve as a potential topic for inclusion in the population education contents as a response to an emerging needs. A discussion of the prospects and problems of the elderly will make the in-school and out-of-school youth and adults aware of the growing number of the elderly as a result of the increasing life expectancy and thus enable them to cope with this reality in their home and community.

42. Abaya, Adel G. "The elderly in the Philippine population," *Unitas* 55(182):293-301, March-June 1982.

A general description of the situation of the elderly in the Philippines is presented in this report. The Philippines is characterized by a young population. In 1975, people aged 65 years and over comprised about 2.9 per cent of the total population, while those 15-64 and 0-14 years made up 53.2 per cent and 43.9 per cent, respectively. Projections for the year 2000 show a further aging of the population. By then, the Philippine population shall have reached 83 million, of which four per cent will be 65 years old and over.

The report points out that the situation of an old person in the Philippines depends largely on his socio-economic status. His health and social conditions are tied to his or his household's economic status. For a few, this status depends on family fortunes or accumulated savings during the period before retirement. For some, this status rests on the amount of benefits or pensions they receive upon retiring. For many who do not have fortunes or pensions, this status rests on the support given by their children and relatives.

Policies, programmes, and social services for the aging population are not organized and extensive. There are two reasons for this. First, the elderly is an integral part of the family, and his needs are provided for by his family. Second, in a developing country like the Philippines where social services are expensive and scarce, investment in the aged is not attractive because it does not yield results which will contribute to socio-economic progress.

Descriptors: *Aged; Social Welfare; Philippines*

Source: University of Santo Tomas
Espana, Manila
Philippines

43. Anwar, Mohamed. "Social structure of Pakistan, some observations," *Pakistan Administration* XIX(1): 76-91, June 1982.

Social structure in this paper has been discussed as the form and the degree of differentiation in society. Sex, age, literacy and income were considered as the parameters for the delineation of social structure of Pakistan. Of all the parameters, sex is by far the most important one in creating differences between men and women at birth and thereby determining their status role vis-a-vis each other. As prescribed by the socio-cultural norm women have traditionally been given lower status than men in varied spheres of human life. Although they do all kinds of production work, the women of Pakistan have been declared "dependent". Table 1 gives population by age and sex 1972. Table 2 gives literacy by age and sex, urban/rural. The age structure of the people of Pakistan shows that about one-third of them are children under 9 years. About 13 per cent of the total population of Pakistan was in the category 10-14 years. There is a very small proportion of old people, implying low longevity of the Pakistan population. However, old persons have a special status in the family, in the neighbourhood, the village and in places of public interaction. The upper class not only gets a "head start" in many walks of life but also enjoys power in decision-making. The fact that large numbers of the rural population live below the poverty line is itself an indication of the income inequalities in society.

Descriptors: *Social Organization; Pakistan*

Source:
Mrs. K. Sajjad's Publications
Shafi Court, Merewetter Road
P.O. Box 10499
Karachi 4
Pakistan

44. Chadda, May. "The Indian woman, today and tomorrow," *Populi* 7(4): 11-16, 1980.

Since the mid-seventies support for affirmative action policy for women has gained momentum in India. The recent experience of family planning has reinforced the feeling that direct government action in this matter is imperative. In Kerala high levels of education and literacy among women are the most important causes of the sharp decline of infant mortality. There is the view that positions must be reserved exclusively for women in village Panchayats, so as to maintain the sex ratio at the highest levels in the village. However this may not help poor women. The benefits of economic growth in India have not been evenly distributed. The rural poor have been excluded from the benefits of industrialization. The Green Revolution, too, benefited the more prosperous strata in the rural areas. Economic development has really widened the gap between "the haves" and "have-nots". The poor constitute 40 per cent of the nation and have grown in absolute numbers. According to the Committee on the "Status of Women", modernization and development have by-passed the poor rural women completely. Most of the women who have risen in the professions and the women legislators are college-educated. Therefore, reservation of quotas for women will not benefit the rural poor, it is the educated women who will make the grade. Greater health and educational opportunities should be given to all women. In particular, women should be enabled to acquire skills that will get them jobs in the non-traditional sector of the economy.

It is only this type of policy which will enable women to participate fully in the development process.

Descriptors: *Women; Women's Status; India*

Source:
UNFPA
220 East 42nd Street
New York, N.Y. 10017
U.S.A.

45. Economic and Social Commission for Asia and the Pacific. *Country monograph on the profile of youth of the Philippines.* Bangkok, 1983. 142 p.

This is one of a series of monographs aimed at providing the countries of the Asian and Pacific region with an understanding of the existing youth situation as well as a scientific basis for decision-making, policy formulation and determination of development goals and targets.

Chapters 1 to 10 of the monograph provides an extensive review of the socio-economic situation and how this affects the youth in the Philippines. A review of existing constitutional, statutory and legal provisions as well as national policies and programmes for youth development and mobilization is presented. The 1975 Philippine census, which counted a total population of 42.5 million, revealed a young age structure with a median age of 17.6 years of both sexes. With a population of 48 million in 1980, more than half were children and youth aged 20 years old. In terms of geographical location, the youth seemed to concentrate in the more populated areas of the country. Of the population aged 15-20, the National Capital Region has 13.04 per cent and Region 4, 12.70 per cent.

Labour statistics indicate that about 44 per cent of the young aged 15-19 and 64.2 per cent of those 20-24 years of age were in the labour force in 1976. Collectively, youth aged 15-24 made up almost a third (29 per cent) of the total labour force. Unemployment and underemployment were found to be higher among youth workers (7.4 to 12.7 per cent during 1971-1978). In education, the proportion of the literate population among youth aged 10-24 was about 90 per cent in 1970. Urban youth, having better access to education had a higher literacy rate than their rural counterparts. A declining trend in the proportion of youth in school, however, has been observed. This implies, among other things a decreasing opportunity for youth to continue into secondary and higher education.

The health situation of youth is not clear-cut due to lack of health data specific to youth. In general, their health problems include malnutrition, dental diseases and disorders, communicable diseases, internal parasitism, drug abuse and addiction and to some extent, accidents. Mortality is much lower in this age group.

Of more immediate concern are the social problems of youth. Juvenile delinquency and drug abuse exist and these were found to be associated with socioeconomic status, poor education of parents and children, absence of either or both parents.

The Filipino youth are among the most religious in the world. They have also been found to be socially aware. A number of them have organized themselves on a nationwide scale and have become actively involved in planning and implementation of development and social service programmes.

A national youth policy is stated explicitly and implicitly in the Philippine development plan. Various sectoral objectives, strategies and policies were drawn up, with particular attention for the youth in education, health, nutrition and development. This makes the Philippines one of the few developing countries with a concrete national youth policy. The monograph ends with the recommendation that a national youth plan be drawn up, to complement the national development plan. The youth plan could serve, among other things, as an effective tool for the coordination of the various programmes and services for the youth.

Descriptors: *Adolescents; Philippines*

Source: Clearinghouse and Information Section
ESCAP Population Division
Rajdamnern Avenue
Bangkok 10200
Thailand

46. Feranil, Imelda Z. "The changing age and sex structure," in: Mercedes B. Concepcion, ed. *Population of the Philippines: current perspectives and future prospects.* Manila, National Economic and Development Authority, 1983, p. 23-41.

Changes in age-sex composition of the Philippine population took place over the period 1948-1980. This paper describes and interprets those changes.

The highlights are:

1. The sex ratios for the 1948-1980 period consistently showed that males had an edge over females, except in 1970 when females outnumbered males. In 1948 and 1980, there were nearly equal numbers of males and females in contrast to a more pronounced excess of males in 1975.

2. In 1980, overall sex ratios by administrative regions indicated that males outnumbered females in all regions, except in Ilocos, Central Visayas, and Metro Manila. Sex ratios over 100 for those 0-14 years old were observed in all regions, except in Metro Manila. Metro Manila and other more urban areas like Central Luzon, Central and Western Visayas had a greater number of females than males 15 years old and over.

3. There were no substantial changes in the age structure in the period 1948-1980. The distribution pattern was characterized by diminishing numbers and proportions with increasing age. Age distribution of the population in 1970 and 1980 by administrative regions showed that the regions

have generally young populations. There were large proportions in the youngest age groups while proportions at succeeding older ages gradually diminished. The young age structure of the Philippines implies an enormous potential for further growth.

4. The 1948-1980 period was characterized by a decline in the proportion of working ages while the population in the youngest age group made up a considerable and increasing proportion. This may be due to high fertility accompanied by declining infant and child mortality. The young population accounted for a sizeable proportion of the dependency ratio.

Descriptors: *Age Distribution; Sex Distribution; Philippines*

Source:
Population/Development Planning and Research Projects
National Economic Development Authority
Amber Avenue, Pasig, Metro Manila
Philippines

47. Gunasekera, H.R. "An evaluation of age data of 1981 population census," *Progress* 3(2): 49-57, June 1983.

Age structure is one of the most fundamental of population characteristics. Age data are the basic inputs for making population projections. This article analyses the accuracy of age data collected in 1981, based on an advance 10 per cent sample tabulation. Myers Index was used by the author to evaluate the quality of age data. The study demonstrated that the age data collected in the 1981 census were reasonably accurate. The inaccuracies were mostly confined to ages beyond 30. There was a remarkable improvement in accuracy between the two censuses of 1971 and 1981. This improvement could probably be attributed to issue of national identity cards, improvements in data collection methodologies and socio-economic development in the country. There are a number of tables taken from the population census which are presented in these articles, e.g. Population Distribution by Single Year of Age and Sex 1971 and 1981.

Descriptors: *Age Distribution; Data Collection*

Source:
Ministry of Plan Implementation
Central Bank Building
Colombo 1
Sri Lanka

48. Kannangara, Nimali. *Atlas of the child.* [Colombo] Ministry of Plan Implementation, 1982. 32 p.

This atlas gives in a very simple form, demographic data of Sri Lanka in relation to children. There are sketches, tables, maps and diagrams in colour which present the data. Some of the tables are children 0-4 years (1971 and 1981), population under 16 years, life expectancy of children at birth per administrative district, live births (1978) per S.H.S. area, infant and child mortality, pregnant women with nutritional anaemia, school dropouts by structure of family, the pre-school child and paediatricians per S.H.S. area, immunization coverage per administrative district, mental retardation and physical handicaps among children, number of children born to mothers in custody, population of certified schools and finally a charter of rights for the child. The booklet ends with a diagram conveying a message in favour of the 2-child family. The publications is well-illustrated because it is a production of the Audio Visual Data Bank of the Family Planning Association of Sri Lanka.

Descriptors: *Children; Demographic Statistics; Sri Lanka*

Source:
Audio Visual Data Bank
Family Planning Association of Sri Lanka
95, Wijerama Mawatha
Colombo 7
Sri Lanka

49. Lee, Eduardo F. and Yun Kim. *School population projections by age, sex and level of education for the Philippines, 1970-2000.* Manila, National Census and Statistics Office, 1979. 78 p. (Monograph no. 16)

This study presents Philippine school population projections by single years of age and sex for the period 1970-2000. The study also includes projections of the school population by grade, for elementary, secondary and tertiary level schools. These projections are based on school attendance data obtained from the fiscal tabulation of the 1970 Census, and the revised population projections prepared by the National Census and Statistics Office (NCSO), using the enrollment-ratio method of projecting school population. Three sets of projections - high, medium and low - are prepared.

The methodology used was the enrollment-ratio approach.

Here are the highlights of the study:

1. According to the high projection, the school age population will increase from about 18 million in 1970 to about 45 million in the year 2000. Under the medium projection, the school-age population is expected to increase from 18 million in 1970 to 36 million in the year 2000. For the low projection, school-age population is estimated at 18 million in 1970 and 27 million by the year 2000.

2. Estimates of the future school population were prepared by applying the projected

participation rates to the projected school-age population by single years of age and males and females separately. For the high projection, the school population will increase from 9 million in 1970 to about 30 million in the year 2000. Under the low projection, it is estimated to increase from some 9 million in 1970 to about 18 million in the year 2000.

3. Throughout the projection period and for all series of projections, it is indicated that the elementary school population formed a substantial proportion of the total school population, contributing an average of 72 per cent. On the other hand, the average share of the high school and college populations were only about 20 per cent and 8 per cent, respectively.

4. The secondary level of education is estimated to have a relatively faster rate of growth than the elementary and collegiate levels. This situation is considered encouraging because of the fact that it is in this level of education that the basic skills required for employment are given emphasis.

5. All series of projections indicated that the out-of-school youth in the younger age-groups will decrease considerably in the future. On the other hand, the out-of-school youth in the older age group will exhibit an increasing trend. The diminishing trend in the proportion of out-of-school youth in the younger age group implies an increasing holding power of the educational system that will presumably lead to a better educated labour force. The increasing trend for the old age-group is indicative of the selective characteristic of the future high educational system.

Descriptors: *School-Age Population; Population Projections; Philippines*

Source: National Census and Statistics Office
Ramon Magsaysay Blvd., Sta. Mesa
Manila
Philippines

50. Morada, Hector B. and Yun Kim. *Labour force participation by age and sex for the Philippines, 1970-2000.* Manila, National Census and Statistics Office, 1977. 61 p. (Monograph no. 6)

Philippine labour force projections by five-year age group and sex for the period 1970-2000 are presented in this study which aims: (a) to study the trends in the Philippine labour force participation rates by age and sex from 1960 to 1970; (b) to prepare three sets of labour force projections - high, medium and low - for the Philippines for the years 1975, 1980, 1985, 1990, 1995 and 2000, by five-year age group and sex, and corresponding to each of the three series of population projections as prepared by the National Census and Statistics Office; (c) to discuss future implications of the projections.

Following are the significant findings:

1. During the 1960-1970 period, there was a decrease in the sizes of the marginal groups of workers (refers to the less than 20 years and the 60 years and over working age groups) among the male labour force. During the same period, there was a significant increase in the size of female labour force. It is also noted that the double peaks in the female labour force participation rates are more pronounced in 1970 than in 1960. These peaks also shifted from 15-19 and 50-54 working age groups in 1960 to 20-24 and 40-44 working age groups in 1970. This situation implies the occurrences of changes in the age pattern of fertility among the females.

2. During the projection period 1970-2000, the labour force is expected to increase from the 1970 size of 13 million to 36.7 million (high projection), 34.7 million (medium projection) and 32.8 million (low projection) by the year 2000. The size of the female labour force is expected to experience tremendous growth - 210 per cent (high projection), 191 per cent (medium projection) and 172 per cent (low projection) - over the 1970 size of 4.4 million. On the other hand, the size of the male labour force is expected to grow at a much lower pace during the projection period - 167 per cent, 154 per cent and 141 per cent over the 1970 male labour force number of about 8.6 million according to the high, medium and low projection series, respectively.

3. The high, medium and low series of projections are consistent in indicating certain patterns of changes in the composition of the projected labour force. There will be a shrinking in the relative size of the marginal age groups (10-19 and 55 and over) among the male labour force and the relative expansion of the middle working age groups (20-54 years old) for the total population. Also, there will be a decline in the economic dependency ratio of the population.

4. Throughout the projection period, the labour force is expected to grow faster than the total population. The main source of gain will be the female population which requires different sets of jobs than the male labour force.

The authors recommend further studies that would provide more detailed labour force projections for the different industrial and occupational categories, and regional and provincial labour force projections.

Descriptors:	*Population Projections; Labour Force; Philippines*
Source:	National Census and Statistics Office Ramon Magsaysay Blvd., Sta. Mesa Manila Philippines

51. Pandumanabha, P. "A note on the provisional results of the 1981 census of India," *Yojana* XXV(9): 4-9, 16-30 May 1981.

The population of the country has steadily increased from 1901 except for a slight fall in the total population in the decade 1911-1921. The sex ratio 1901-1981 has been adverse to females, but for the first time, in 1981 it did not deteriorate. Projections on the expectation of life at birth of females have been improving over the years. Probably maternal and child care programmes are yielding dividends. Kerala is the only state where the sex ratio is in favour of females. A table on progress of female literacy from 1901-1981 is of special significance, as female literacy is of particular importance in programmes of policy planning and health care. Till 1920 female literacy was considerably below male literacy with a ratio of nearly 1:10 in favour of males. While there is general improvement in the literacy in the country, large number of males and females are still illiterate. Since time is the scarcest resource in the context of India's population, it is essential that a component relating to reduction in fertility is built into almost every programme of the Government, so that there could be a much wider spread with better utilization of agencies.

Descriptors: *Population Composition; Women; India*

Source:
Yojana Bhavan
Parliament Street
New Delhi 110001
India

52. Philippines. Ministry of Education, Culture and Sports. Population Education Program. *Population composition: age-sex structure.* Module no. 5 of "A module in population education for elementary and secondary school teachers." Second edition. Manila, 1984. 23 p.

Two of the most important characteristics of the population -- age and sex structure -- are discussed in this module.

Sex is one of the most important characteristics for these reasons: sex composition directly affects the incidence of birth, death, and migration; sex ratio influences the migration rate, the labour force, and the occupational structure; and sex is the basis of distinction in almost every aspect of social structure. The module presents tables showing the sex ratio of the population by age group, for the 1903-1975 period; sex ratio by regions and by broad age group in 1970; 1975 sex ratio of the population by region and 1970 sex ratio by regional divisions and by residence. An analysis of data presented on the tables reveals these information: (a) The male and female populations have been steadily increasing; (b) The greatest gains were recorded between 1918 and 1939 with the male population gaining by 36 per cent and the female, 35 per cent; and (e) Except for 1903 and 1970, the males outnumbered the females.

Age structure is as important as sex structure. Many demographic variables tend to vary with age. The module presents five types of age distributions that characterize nations. These include the following: (a) Type I is characterized by very high birth and death rates; (b) Type II is characterized by high birth rates and recently reduced death rate. This is represented by countries that have 40-50 per cent of their populations in the 0-14 age groups; (c) Type III represents populations that have low birth and death rates; (d) Type IV represents populations with low birth and death rates, followed by relatively high fertility; and (e) Type V represents a population that at one time had been growing very rapidly, with high birth rates and lowered death rates, but later experienced a powerful and continued reduction in the birth rates.

The module presents a table showing the percentage distribution of the Philippine population by age groups for the 1903-1975 period. An analysis of the data on the table reveals the following: (a) The proportion of the 0-14 age group rose from 19 per cent in 1903 to about 46 per cent in 1970; (b) The percentage of the age group 65 years and over declined from 3.3 per cent in 1903 to 2.8 per cent in 1970, and then it increased slightly in 1975; (c) The percentage of the ages belonging to the economically productive ages of 15-64 fell from 57.2 per cent in 1903 to 51.7 per cent in 1970, and went up to 53.1 per cent in 1975; (d) The Philippine population is young and is getting younger; and (e) The median of the population dropped from 20.2 years in 1903 to 17.9 years in 1970.

Descriptors:	*Age Distribution; Population Characteristics; Population Education; Instructional Materials; Teacher Education; Philippines*
Source:	Population Education Program Ministry of Education, Culture and Sports Palacio del Gobernador Intramuros, Manila Philippines

53. Sirinivasan, K., Saxena, P.C. and Kanitkar, Tara. *Demographic and socio-economic aspects of the child in India.* n.p. Himalaya Publishing House, December 1979. 652 p.

This volume is in two parts. Part One contains the revised version of the full-length papers presented at the All-India Seminar on "Demographic and Socio-Economic Aspects of the Child in India", which was held in Bombay from 26th to 28th February 1979. Part Two gives the notes, reviews and summaries of other papers presented. The papers in Part One are broadly classified under the following sections namely: (1) Demographic and Economic Aspects of the Child; (2) Social Aspects of the Child. From the perspective of population education, the most valuable sections are "Size, Growth and Basic Composition of the Child Population, Factors Influencing Infant Mortality" and "Child Migrants and Child Migrant Labour". With regard to Infant Mortality, the authors say although infant and child mortality has recorded a decline over the years, its level is still high in the country.

Descriptors: *Children; Socio-Economic Factors; India*

Source: International Institute of Population Studies
Bombay 400033
India

54. Sri Lanka. Department of Census and Statistics. *Statistical profile of children.* A publication for the International Year of the Child 1977. Colombo, 1978. 85 p.

As the name of the publication suggests, it contains statistical information on children under the following headings: (1) Population and Vital Statistics; (2) Economy and Labour; (3) Health and Nutrition; (4) Education; (5) Housing and Social Sciences.

Some of the important tables in Section One deal with infant and child mortality, population under 15 years by age and sex, infant, neo-natal and maternal deaths and death rates 1965-1975 and mortality at each year of age under 5 years 1965-1975. Under the heading "economy and labour", table 31 shows average household and food expenditure and table 39 shows employed population by major occupational groups and sex. These tables are of special significance as they are not found in most publications giving socio-economic indicators of Sri Lanka. With regard to health, education, housing and social services, there are a number of tables giving government programmes, the number of beneficiaries and personnel engaged in these services. All these statistics highlight the position of children in the social structure and the advantages and disadvantages of the prevailing child care services.

Descriptors: *Demographic Statistics; Children; Sri Lanka*

Source: Dept. of Census & Statistics
No.16/7, Albert Crescent
P.O. Box 503
Colombo
Sri Lanka

55. United Nations. Department of Economic and Social Affairs. *The aging in slums and uncontrolled settlements*. New York, 1977. 48 p.

The aging in this publication are defined as "individuals sixty years of age or older". The objective of this publication is to indicate the existing policies relating to the aging in slums and squatter settlements and to identify the extent to which thought is being given by governments and non-governmental organizations to the needs of this section of the population. The opening chapter gives an overview of the structure of the urban population in general and the characteristics of slums and uncontrolled settlements in particular. The composition of the aging population in these centres is then analysed. In the highly industrialized world the aging lived apart from their children and some have been actually forgotten by their families. In New York City approximately 30,000 older persons were true isolates. A study in the city of Madras, India, revealed that 75 per cent of the aging lived with their children. Only 2.7 per cent lived alone. However, health problems increased with age and most of the aging in slums were living in poor housing conditions where overcrowding and dampness gave rise to rheumatism, T.B., pneumonia and colds. With regard to social integration of the elderly, studies have shown that the elderly in the slums were more sickly than their peers in better locations and participated less in activities and had lower morale than older people in better surroundings. Despite the attractions of city life and other factors there is some return migration, especially among the elderly. A study in Bombay concluded that there existed appreciable reverse migration of individuals over the age of 25 and this was higher among males than females. Governments should mobilize and utilize the potential contribution of the aging themselves, their families and community in solving their problems, as social policies for the aged are practically non-existent in many developing countries.

Descriptors: *Aged; Slums; Social Conditions*

Source: Department of Economic and Social Affairs
United Nations
New York, N.Y. 10017
U.S.A.

56. University of Colombo. *Status of women*. Colombo, 1979. 673 p.

The University of Colombo sponsored this study as part of its research programme to meet national needs. The article which is of greatest relevance to Population Education is "The Demographic Backgrond" by Chandra Jayasuriya. There are a number of tables relating to the demographic background viz. sex ratio by districts, female population by five-year groups, female population by ethnic groups, married population, crude death rates by sex and special death rate. The table on female infant mortality by districts shows a high infant mortality for the estate sector (Nuwara Eliya) and low infant mortality for the Southwest (e.g. Kalutara). Chandra Jayasuriya analyses the tables in relation to the status of women in Sri Lanka. Swarna Jayaseera's articles on "Women and Education" and "Women in the Economy" are also of particular significance in assessing trends in growth of population engaged in education. There are a number of tables presented sex-wise which are invaluable in their context, as few publications in Sri Lanka differentiate population by sex. Some of these tables are enrolment in schools, drop-outs, University admissions, participation rate in education, literacy, population by education level, unemployed population, University graduates by employment. The articles on Health by Priyani Soysa and Law by Nirmala Chandrahasan give demographic trends and data related to these specialized fields which are significant in assessing the status of women in Sri Lanka. Nirmala Chandrahasan says that a survey of the general and personal laws reveal certain areas in which women are subject to disabilities under the law and do not exercise the same rights as men. Dr. Priyani Soya's article highlights the fact that the most vulnerable groups in the country requiring health and nutrition are mothers and children, who comprise 75 per cent of the community. Because of their position in the family and society, they have the possibility of changing attitudes and practices and making society accept new ideas, the implementation of which would lead to greater material benefits and better health and nutrition for the nation.

Descriptors: *Female Employment; Women's Status; Sri Lanka*

Source: University of Colombo
Thurstan Road
Colombo 3
Sri Lanka

57. Voice of Women. *Women workers in the free trade zone.* Colombo, 1983. 101 p. (Voice of Women publication series no. 1)

In 1978 Sri Lanka entered the network of Third World Free Trade Zones. This study aims at examining only the various aspects and elements of the conditions of women workers in the Sri Lanka Free Trade Zone, their social profile, their conditions of work, the social and cultural aspects of female labour on the area, the villages and families from which the labour is harnessed, the logic of using female labour. The methodology used was by in-depth interviews with a sample of women workers in the F.T.Z. of the 24 factories, 17 were garment factories, 7 were fishing gear manufacturies, electric and leather appliance manufacturies, cashew processing, rubber-based industries, gem-cutting and tea bag manufacture. The findings revealed that 72 per cent of the women were below 25 years of age. FTZ factories do not retain any worker who is not in good health and factory workers view their jobs as phase job. Thirty eight per cent said the management discouraged marriage. The system eliminates the sick, aging or married. The ethno-religious background of the women is Sinhala Buddhist or Sinhala Catholic. Fifty-three per cent had a working class background. The peasantry accounted for 11 per cent and the lower middle class 17 per cent. The social class of the balance is unidentified. Nearly 70 per cent of the FTZ workers had completed secondary education. With regard to promotions, those who are docile are given preference. Sexual favours influence speed of movement to higher categories. In the large factories, or recruitment, a worker is paid Rs. 17.30 and on being made permanent Rs. 20/- per day. The smaller factories paid only Rs. 15/- on recruitment. There were small incentives for good attendance. There were no rest rooms but toilet facilities were adequate. Occupational hazards were minimal but there was evidence of occupational disease and a high incidence of V.D. The villagers from the neighbouring village felt the women were leading a permissive sex life. The booklet ends on a note of oppression by the management and a plea to Parliament on behalf of the workers.

Descriptors:	*Female Employment; Sri Lanka*
Source:	Voice of Women 18-9, Chitra Lane Colombo 3 Sri Lanka

58. Women's Bureau of Sri Lanka. *Women and night work,* by Ranjith Cabraal and others. Colombo, 1981. 32 p.

Present legislation does not permit women to work in night shifts except in some specified categories of employment. The ILO Convention, No. 89 prohibits the employment of women workers in factories between 10 p.m. and 5 a.m. Any country can renounce these regulations after 10 years. The Ministry of Labour feels that all legislative provisions which operate against equality of opportunity for women should be eliminated. This publication contains the proceedings and findings of a survey on "Night work for women" carried out among women workers by the Women's Bureau. Of the sample 53.51 per cent said they were not willing to work at night; 34.25 per cent said they would be willing, while the rest were uncertain. Additional financial remuneration was the most powerful factor that would induce them to be engaged in night work. However, 81.69 of the total sample said that household peace could be ensured by their not engaging in night work. There were also difficulties in transport at night. The sample said there should be toilet and medical facilities, less work-loads and equal pay and promotional prospects in workplaces. Of the total sample 45.7 per cent said trade union opposition to female employment at night had been an important factor in their decision not to engage in night employment, but 49.6 per cent did not consider this as having much impact on their decision. Other hindrances to night work were children, especially infants, being neglected and the rise in home expenses when the household is left to servants. A large number were not willing to engage in night work because of Sri Lankan social and cultural traditions. The Women's Bureau was of the opinion that the introduction of night work, subject to control, should greatly enhance employment opportunities for women.

Descriptors: *Female Employment; Employment Opportunities, Sri Lanka*

Source:
Ministry of Plan Implementation
124, Barnes Place
Colombo 7
Sri Lanka

SECTION FOUR: FERTILITY

Fertility

This section consists of abstracts which deal with fertility. Fertility refers to the reproductive performance of males, females or couples in a population. It also refers to the incidence of birth in a population and is related to the number of marriages, the age at marriage, the age-sex structure and socio-economic, psychological and cultural factors. Some topics under fertility are: birth rate, general and age-specific fertility rate, completed and total fertility rate, gross reproduction rate, net reproduction rate, and replacement level fertility.

There are 43 entries in this section, by far the largest among the sections. There are basically two types of materials abstracted in this section. The first type involves national surveys of fertility trends and differentials undertaken by the reports of the World Fertility Survey which were carried out in many countries all over the world under the auspices of the International Union for the Scientific Study of Population. The surveys were undertaken in each country to provide basic measures of the level and trends of fertility, to study fertility differentials, to collect data on knowledge and use of contraception and to develop national capabilities for conducting demographic surveys. The results of these surveys show national fertility rates, family size preferences, knowledge and use of contraception, nuptiality and exposure to childbearing, preferences concerning the sex of children and contraceptive demand and supply. These reports also show that fertility differentials result from many factors or variables such as age at first marriage, educational level, occupation, ethnicity, religion, duration of marriage, location, socio-economic background, birth control practices, etc.

The other type of materials include comparative studies of fertility trends and differentials as they are subjected to varying conditions. For example, research studies compare the fertility levels of women in rural agricultural areas against those in rural industrial or those who participate in women development projects vis-a-vis those who do not. Other dependent variables or experiential conditions include the impact of the following on fertility: land settlement project, multiple cropping, agricultural land reform, man-made lake development, modern agricultural technology practices, rural electrification, industrialized sector, cottage industry, and agricultural cooperatives. While these are all development-oriented projects, other types of variables or factors were also studied to determine their influence on the fertility levels of various respondents. Those also examined are: decision-making power between husband and wife, extra-familial activities, breast-feeding, women's labour force participation, incentives and disincentives, socio-economic and demographic factors, ethnicity, exposure to mass media, income and wealth, age at first marriage, educational level, duration of marriage, husband's occupation, etc.

About eight entries departed a little from this trend of discussion by focusing on an analysis of research findings concerning profile of adolescent fertility, knowledge, attitudes and practices on human sexuality and reproduction, surveys on value of children and an assessment of the knowledge, attitude and practices with regard to family planning. It should be noted that a discussion of fertility levels and differentials is always followed by an exposition of family planning knowledge, acceptability and practices and family planning policies and programmes undertaken to bring down high fertility rates.

Topics about fertility are rich sources of content areas for population education especially when it is integrated into health, home economics and mathematics. In health, lessons on biological determinants of fertility, social and psychological determinants of fertility and sterility are taken up to develop knowledge and understanding of the determinants of fertility and how these affect fertility behaviours. More specifically, it shows how high fertility rate can affect the health of the mother, children and the whole family. In social studies, the unit on values and social norms include a discussion of how beliefs and practices of society can influence fertility. Even in mathematics, interpretation of fertility patterns is taken up to enable the student to know that human fertility patterns can change and that such changes can be voluntarily controlled. In home economics, age at marriage is taken up to show how it can affect the number of children or fertility of a woman.

59. Abeyasekera, A.W.D.G. *Socio-economic and cultural differentials with possible bearing on human reproduction in Sri Lanka.* Colombo, Family Planning Communication Strategy Project, Department of Information, 1975. 33 p. (Paper no. 3)

This book examines the socio-economic and cultural determinants of fertility and communication motivation for family planning. It also investigates the relationship between ethnicity and fertility behaviour and recommends an emphasis on traditional methods which do not conflict with existing cultural values. This could be done through educational programmes such as sex education in schools. Communication regarding family planning should be directed to the slums and lower socio-economic classes. Legislative manipulation should make the large family a liability rather than an asset. There are a number of tables related to demography which should be of value to students and researchers in this field.

Descriptors: *Fertility Determinants; Socio-economic Factors; Ethnicity; Sri Lanka*

Source:
Family Planning Communication Strategy Project
Department of Information
Colombo
Sri Lanka

60. *Assessment of national and regional crude birth rates (CBRs), age-specific fertility rates (ASFRs) and total fertility rates (TFRs).* Manila, Population Institute, University of the Philippines. n.d. 30 p. (Area Fertility Survey Special report no. 52)

This report assesses all the available national and regional estimates of crude birth rates (CBRs) to obtain the best estimates of fertility levels and trends for the Philippines and its regions. These measures are presented according to the following periods: 1894-1950, 1950-59, 1960-64, 1965-69, 1970-74, 1975 and 1977.

Following are highlights of the report:

1. The assessment of various estimates of the national CBR remained fairly constant at a level above 50 from 1984 up to about the 1950s, hovered well above 44 until the 1960s, dropped below 40 in the early 1970s and dropped further to somewhere above 30 in the late seventies.

2. In general, the more refined fertility measures, ASFRs and TFRs, lend support to fertility declines suggested by CBRs. Assessment of indirect estimates suggests that the most reliable rates are those yielded by birth history analysis.

3. Due to the unreliability of CBRs for the regions, regional fertility estimates from the period 1960 down are based on ASFRs and TFRs. TFRs indicate that except for Metro Manila, Ilocos, Central Luzon, Southern Tagalog

and Central Visayas, all the rest still display fertility levels well above the national average.

To achieve the goal of replacement fertility in the year 2000, it is essential that the amount of force which brought down fertility in the seventies be maintained or increased. In particular, regions where fertility is still well above average need a greater amount of force to hasten the decline that has started.

Descriptors: *Fertility Surveys; Birth Rate; Tertiary Rate; Philippines*

Source:
Population Institute
University of the Philippines
Padre Faura
P.O. Box 479
Manila
Philippines

61. Bangladesh. Ministry of Health and Population Control. *Bangladesh fertility survey 1975-1976, first report*. The Hague, International Statistical Institute, 1978. 414 p., appendices.

The report presented here is the outcome of a national fertility survey carried out in Bangladesh within the W.F.S. programme. National data on fertility and mortality levels and their determinants were lacking both in quality and coverage in Bangladesh and this survey provides a wealth of data. The objectives of the survey were the following: (1) to provide basic measures of the level of fertility; (2) to collect and analyse data; (3) to study fertility differentials; (4) to make fertility data widely available; (5) to attempt to institutionalize scientifically sound procedures of data collection; and (6) to train national staff at all levels for demographic surveys. In the first chapter of the book, the historical background of Bangladesh is sketched. Chapter 2 deals with the National Population Policies and Programmes. The mean age at marriage was only 14.3 in 1974 but age at first marriage was rising which is 15 years in 1976. The mean number of children born to ever married women was 4.0. The infant mortality rate was 150 per 1000 live births (1973-1975). Knowledge of contraceptives was widespread for women of all ages, but only 13.6 per cent used any method.

Descriptors: *Fertility Surveys; Bangladesh*

Source:
International Statistical Institute
World Fertility Survey
428 Princess Beatrixlaan
Voorburg
The Hague
Netherlands

62. **Bulatao, Rodolfo A.** *The value of children, vol. 2 - Philippines; a cross national study.* Honolulu, East-West Population Institute, 1975. 222 p.

This study investigates the values and disvalues attached to children by Filipino parents, as well as the characteristics of parents which are related to particular values and disvalues. It also examines how these values and disvalues relate to the desired number of children.

The value of children is meant to include both the satisfactions parents receive from children and the costs, or disvalues, they incur in having children. An attempt was made to untangle the different specifications and orderings of values through a scheme in which each value is assumed to have three characteristics: salience, or frequency of reference to the value; centrality, or closeness to a person's basic concerns; and differential effect, or the prominence a certain value has in highlighting particular contrasts, such as boys versus girls or the first child versus the fifth child.

Data were obtained from a sample of 389 young married couples from Greater Manila and Bulacan interviewed between December 1972 and January 1973. The sample represented three groups: the urban middle class, the urban rural class and the rural residents. Following are the major findings:

a) Economic benefits were found to be prominent among the values and disvalues attached to children. Three economic benefits derived from children were identified as salient; namely, asistance in old age, help in housework, and contribution to family income.

b) Love between parent and child, the incentive to work harder when one has children to provide for, the desire to share with children and to learn about life through having children, and having children as an expression of parental roles emerged as the most important central values.

c) The financial burden associated with raising children appears to be the most important disvalue in both salience and centrality.

d) Rural respondents attached importance to positive values like economic health and family continuity while urban respondents tend to mention happiness, family harmony, and other psychological rewards.

e) Respondents married longer were more practical and concrete in their expectations from children than recently married respondents.

f) When effect on family size preferences is considered, values derived from social interaction appear to be primary among the positive values attached to children. In general, the reinforcing effects of children on social relationships, and the rewarding aspects of interaction with children themselves, appear to be the values closely related with number of preferences.

g) The disvalues affecting family size preferences are mainly economic.

Descriptors: *Value of Children; Philippines*

Source:
East-West Population Institute
East-West Center
Honolulu, Hawaii 96848
U.S.A.

63. Del Fierro, Alfonso C., Jr. "Education and fertility in the Philippines," *Journal of Education and Social Research* 1(1): 1-12. 1983.

Studies examining the relationship between education and fertility have generally found an association between increasing years of formal schooling and declines in fertility. The study on which this report is based seeks to find out the extent to which education produces changes in fertility among various geographical areas and social categories in their production.

The five objectives of the study are: (a) to examine the influence of education on the fertility behaviour of currently married women in Misamis Oriental and Southern Leyte Provinces; (b) to determine the magnitude of variations in fertility associated with given changes in educational attainment; (c) to investigate differences in fertility along education classes between urban and rural areas; (d) to seek an explanation for any observed relation between education and fertility in terms of contraception practice; and (e) to formulate a set of recommendations with policy implications based on the findings.

Data source was the 1977 round of the Seven Provinces Survey (SPS) which covered Capiz, Laguna, Misamis Oriental, Negros Oriental, Nueva Ecija, Pangasinan and Southern Leyte. The SPS was a joint undertaking of three university-based research institutions designed to study fertility trends and family planning behaviour of women.

The target population was defined as all married women between the ages of 15 and 54 years. The sample included 14,000 households for all the seven provinces. Major variables of the study were fertility, information on which was gathered through the Pregnancy History Approach and measured in terms of crude birth rates and family planning, which involved such factors as knowledge, attitudes and practices of contraception.

Other variables obtained were rural-urban residence, age of women, occupation, education, socio-economic status, and marriage duration. The study showed a pronounced and consistent inverse relationship between education and fertility. Fertility reductions for women enrolled at the terminal years of any of the three school levels were comparatively greater than for those enrolled in the initial years.

An important variable considered is place of residence. Urban living has been associated with low fertility. This differential has been attributed to different value orientations. These findings indicate that relatively large investments in education are needed before there can be any noticeable drop in fertility. As such, education's effect can only be felt in the long run.

Too, regardless of education, family planning practice relates positively to urban residence. And, independently of residence, education is positively associated with family planning practice. Thus, education can be a potent force in fertility reduction, as an adjunct but not a substitute for family planning.

Descriptors: *Fertility Determinants; Educational Status; Philippines*

Source:
Eldrep Publication
Reid Educational Foundation
4000 Albe, Marley St., N.W.
Washington, D.C. 20016
U.S.A.

64. Hodge, Robert, W. and Nashies Ogarus. *Fertility and marriage in Sri Lanka; some insights from path analysis.* Tokyo, Nithon University Population Research Institute, 1981. 29 p. (NUPRI - Research paper series no. 6)

By drawing upon data in the Sri Lanka Fertility Survey conducted in 1975, this study attempts to clarify through path analysis how age at first marriage and other factors affect fertility. The casual model developed in this study includes birth nominal and interval variability as well as unmeasured variable. Although the authors have imposed in the model the external assumption that no net socio-economic differentials were present in Sri Lanka, the model performs quite satisfactorily. Despite the fact that it is a simplification of reality to assume that the entire causal impact of socio-economic factors upon fertility is channelled through age at first marriage, there are undoubtedly major vehicles through which socio-economic forces affect fertility in Sri Lanka.

Descriptors: *Fertility Analysis; Fertility Determinants; Age at Marriage; Sri Lanka*

Source:
Nithon University Population Research Institute
31 - Masakiecho -1-Chome, Chiyoda
Tokyo 101
Japan

65. International Statistical Institute. *The Bangladesh fertility survey, 1975: a summary of findings.* The Hague, International Statistical Institute/London , World Fertility Survey, 1979. 12 p. (World Fertility Survey no. 13)

This summary is one of a series containing the salient findings of the country reports of the WFS programme. The Bangladesh fertility survey was undertaken "to provide basic measures of the level and trend of fertility, to study fertility differentials, to collect data on knowledge and use of contraception and to develop national capabilities for conducting demographic surveys". The survey findings suggest that fertility in Bangladesh continues at a high level though a fall in the 1970s might have been precipitated by national disasters. However, knowledge of contraception is widespread and family size preferences of many women appear lower than their actual fertility. Age at marriage is increasing and in many other Asian countries, this phenomenon has been the precursor of a fall in fertility. An interesting section is "Nuptiality and Exposure to Child Bearing". As child betrothal is traditional in Bangladesh, married women were asked not only when their marriages had been contracted but also the interval between marriage and consummation. It is clear that marriages were registered at a very early age; 16 per cent reported age at marriage at below 10 years.

Descriptors: *Fertility Analysis; Fertility Surveys; Fertility Determinants; Bangladesh*

Source: International Statistical Institute
World Fertility Survey
428 Princess Beatrixlaan
Voorburg, The Hague
Netherlands

66. International Statistical Institute. *The Nepal fertility survey, 1975: a summary of findings.* The Hague, International Statistical Institute/London, World Fertility Survey, 1978. 11 p. (World Fertility Survey no. 5)

There is a dearth of reliable national data on demographic processes in Nepal and the World Fertility Survey was the first conducted on scientific lines in this mountainous landlocked country. This summary presents the findings in a manner intelligible to the average reader. The findings are reported under four headings: (1) Nuptiality and exposure to child-bearing; (2) Fertility; (3) Family size preference; and (4) Knowledge and use of contraception.

Survey findings confirm that Nepalese marriages are extremely stable. An overwhelming majority of women said they would prefer a boy when questioned regarding their preferences for children. Only four per cent of the total sample reported that they had ever practised any method of contraception and it seems unlikely that contraception has any influence on the overall level of fertility in Nepal. No substantial differentials in breast-feeding were discussed, though prolonged lactation appears to be slightly more common in the hills than in other regions and less common among educated couples than uneducated.

Descriptors: *Fertility Analysis; Marriages; Desired Family Size; Nepal*

Source:
International Statistical Institute
428 Princess Beatrixlaan
Voorburg, The Hague
Netherlands

67. International Statistical Institute. *The Pakistan fertility survey, 1975: a summary of findings.* The Hague, International Statistical Institute/London, World Fertility Survey, 1977. 11 p. (World Fertility Survey no. 3)

The pamphlet gives in summary form the main findings of the World Fertility Survey. The survey revealed that the incidence of pre-marital sex is not significant and reproduction is confined to married couples. Only a small proportion of marriages are dissolved by divorce even though both divorce and separation are permitted by Islam. The high fertility of Pakistani women is partially counter-balanced by the high mortality of children. Seventy per cent of the women wanting another child preferred a boy, but the sex composition of living children seemed to have an effect on the preferred sex of the next child. In Pakistan radio provided a good channel for dissemination of family planning. Seventy five per cent of the total sample tested knew at least one method of family planning but only eight per cent of all respondents had ever used contraception. Increased emphasis is being placed on better coordination, cooperation and collaboration of population planning activities with rural development, health and other programmes. It is hoped that as a result of this multi-sectoral approach, fertility will show a considerable decline.

Descriptors: *Fertility Analysis; Fertility Surveys; Fertility Determinants; Pakistan*

Source:
International Statistical Institute
428 Princess Beatrixlaan
Voorburg, The Hague
Netherlands

68. Kanikar Sookasame. *Desired family size in rural Thailand.* Paper presented at the First Seminar on Applied Statistics, Bangkok, 13-14 May 1981. 36 p.

Using survey data from two villages in rural Thailand, this study attempts to assess a causal model of desired family size preferences. The model contains community location, socio-economic status, and demographic background as exogeneous variables, and extra-familial activities, expected support from children, sex preference, educational aspiration for children, and attitude towards the use of birth control as intermediate variables. Results indicate that community location, women's age, extra-familial activities and family expenditure, in the order, exert significant direct effects on desired family size whereas most of the indirect effects are negligible. The findings imply that (1) to lower future fertility in rural Thailand, extra-familial activities which often serve as the media or urban-rural diffusion process should be encouraged; (2) rural women of younger cohorts may be considered as the high-priority target population and may be employed as an innovative core group to diffuse and expand the new fertility norms at the village level.

Descriptors: *Desired Family Size; Socio-economic Factors; Thailand*

Source:
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

69. Kanikar Sookasame. *Factors affecting fertility of rural Thai women.* Bangkok, 1983. 31 p.

Using the data from the Micro-economic Analysis: A Rural Perspective of Thailand, a survey sponsored by International Development Research Center, Canada (IDRC), this paper attempts to study the effects of socio-economic and demographic factors on fertility. Method of analysis include crosstabulation and regression. For the regression analysis, the dependent variable, fertility, is operationalized as the expected number of children (number of living children + number additional children wanted). Four sets of independent variables are included: socio-economic background, demographic background, knowledge, attitude and practice of family planning, and regional difference. All the independent variables together account for 41% of the total variation of expected fertility. Age is found to be the sole variable of high significance reflecting the recent decline in fertility among the younger generations in rural Thailand.

Descriptors: *Fertility Determinants; Socio-economic Factors; Rural Women; Thailand*

Source:
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

70. **Kanikar Sookasame.** *The impact of agricultural irrigation projects on fertility in northeastern Thailand.* Bangkok, National Institute of Development Administration, 1984. 65 p.

The main objective of this paper is to study the impact of development of agricultural irrigation systems on the fertility behaviour of the rural North-eastern Thai at the household and the village levels, taking into account of the impact of other development projects on fertility.

The results of the study for the village level found that development had a negative impact on fertility and the longer the period of development, the stronger the impact of development, and that agricultural irrigation systems play a major role in fertility reduction at the village level particularly in combination with other development inputs such as health and electrification. Further analysis at the household level also shows that the development of agricultural irrigation directly affects changes in the social and economic determinant of the intermediate variables which, in turn, directly affect fertility at the household level. In other words at the household level, the development of agricultural irrigation systems does not have a direct effect on fertility but its effect is indirect and can be more clearly seen at a higher aggregated community level.

Descriptors: *Fertility Determinants; Agricultural Innovation; Thailand*

Source:
School of Applied Statistics
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

71. **Kent, Mary. Mederios.** *Breast-feeding in the developing world (current patterns and implications for future trends).* Washington, D.C., Population Reference Bureau, 1981.

In this report the author uses data to examine the initiation and duration of breast-feeding in 19 developing countries. In Asia, the highest percentage of breast-feeding is in Nepal and Bangladesh (about 98 per cent). Generally, the initiation and duration of breast-feeding in a country varies inversely with its level of economic development. Breast-feeding is not only beneficial for infant nutrition but also operates as a child-spacing mechanism as nursing mothers are less likely to conceive. Using World Fertility Survey data for Pakistan, the author found that higher educational levels of the wife and husband are associated with shorter duration of breast-feeding. A similar link was found in studies using WFS data for

Sri Lanka and Bangladesh. If contraceptive use increases to high levels, lactation will cease to be important to child spacing. However, for most of South East Asia, patterns of breast-feeding will be a contributory factor in the levels of fertility, at least in the future.

Descriptors: *Fertility Determinants; Breast Feeding; Asia*

Source:
Population Reference Bureau
777 Fourteenth St., N.W.
Suite 800
Washington, D.C. 20005
U.S.A.

72. Khan, M.E. *Family planning among Muslims in India.* n.p., Manchar Publications, 1979. 195 p.

According to this book the population explosion in India can be checked only by understanding the dynamics of human fertility. Muslims are the largest minority in India constituting about 11.2 per cent of the Indian population, and this book gives valuable insights into the fertility behaviour of Indian Muslims. It gives detailed information about the levels of family planning practice among the Muslims and points to some of the important barriers to contraception. Using multivariant analysis, the author has attempted to identify the key variables which affect fertility and acceptance of family planning among Muslims. The study has been strengthened by evidence from the Holy Quran to show that Islam does not forbid the use of family planning methods. Chapter seven, the last chapter, integrates all the findings of the previous chapters and presents the conclusions of the study. One of the most important factors causing high fertility was high child mortality and the other was the perceived benefits of having children. Education could be used to control fertility. A strong preference for male children was observed. The majority of respondents lacked knowledge of family planning.

Descriptors: *Fertility Determinants; Islam; India*

Source:
Family Planning Foundation
198 Golf Links
New Delhi - 110003
India

73. Little, Roderick J.A. and Soma Perera. *Illustrative analysis - differentials in cumulative fertility in Sri Lanka; a marriage cohort approach.* The Hague, International Statistical Institute, 1980.

This illustrative analysis is conceived with the study of socio-economic differentials in cumulative fertility. Marriage cohorts rather than birth cohorts are compared in the present study, based on the 1975 Sri Lanka Fertility Survey. The conclusions found in this study are as follows: (1) Age at marriage has an important influence on the marital fertility of the cohorts in the study; (2) Differentials in fertility in the first ten years of marriage are statistically insignificant; (3) By the second decade of marriage, considerable differentials in fertility emerge; (4) Differentials are largely attributable to differences in the age at marriage, racial composition, urbanity and socio-economic factors; (5) Important ethnic differentials are also evident in the second decade of marriage; (6) Urban-rural differentials are small and in the expected direction; (7) An intriguing pattern of differentials by the respondents' urban status emerges from the analysis; (8) Large differentials in fertility by education of husband or wife emerge in the second decade of marriage; (9) Large variations in fertility by husband's occupation are evident; and (10) There is a need for a wider knowledge of fertility regulation.

Descriptors: *Fertility Analysis; Fertility Determinants; Sri Lanka*

Source:
International Statistical Institute
428 Princess Beatrixlaan
P.O. Box 950
Voorburg, The Hague
Netherlands

74. Mataragnon, Rita. ."Sex and the Filipino adolescent: a review," *Philippine Studies* 30:311-334, 1982.

Filipino adolescents today have more liberal attitudes towards sex. This growing openness towards sex-related issues, however, does not mean that Filipino adolescents are moving towards a new morality or permissiveness.

In a review of studies conducted on the Filipino adolescent, the author pictures Filipino adolescent as being caught pino adolescents as being caught in a period of transition. For example, on the question of virginity, several studies have shown that while it is generally valued, it is no longer regarded in an absolute way as it was a generation ago. It appears, however, that female virginity is still more highly valued than male virginity, suggesting the endurance of the double standard. Statistics on the percentage of adolescents who accept premarital sex vary, ranging from 25 per cent (De La Salle Survey) to a height of 64 per cent (Metro Manila Adolescent Profile). Those who accept premarital sex do so as long as it is done for love's sake. On the question of marriage or living-in, most adolescents still prefer marriage.

Following are some of the findings in the review: (1) Filipino adolescents are familiar with the basic anatomy sex but lack knowledge of such technical and medical aspects of ovulation, menstruation and fertilization; (2) Their knowledge of family planning is limited to awareness of methods. They were vague about the manner of usage and the methods' effects; (3) Personal sources of information on sex-related topics, especially best friends, are preferred; (4) They have open attitudes towards family planning, masturbation, homosexuality and abortion; (5) Adolescent crushes are very common. Males tend to choose teachers and classmates while females more often choose safe, distant targets such as basketball and movie stars; (6) About half of all adolescents had current sweethearts. The same proportion had gone dating, with more males than females doing so frequently; (7) Masturbation seems more common among males. One study cites that about 78 per cent of young men masturbate compared to only 5.4 per cent among young women. (Young women may have underreported the practice); (8) There is inconsistent data on forms of intimacy Filipino adolescents engage in. The proportion of adolescents who have engaged in premarital sex ranges from 14 per cent to 33 per cent; (9) Among the problems adolescents are faced with are: accidental pregnancy, inadequate sex education, boy-girl emotional problem, social and physical development, and anxieties over kissing and petting, homosexual and lesbian relationships, live-in secrets and affairs with married men.

The author observes that studies on the Filipino adolescent were mostly descriptive rather than multivariate. There is also lack of consistent data regarding actual sex-related practices. (Most of the studies included in the review were conducted in Metro Manila.) These limitations, however, do not hide the fact that thousands of Filipino adolescents need help.

Descriptors	*Adolescents; Sexual Behaviour; Philippines*
Source:	Ateneo de Manila University Press P.O. Box 154 Manila 2801 Philippines

75. Migsarn Santikarn and Thongselai Chusuwan. *Industrialization and fertility.* Bangkok, National Institute of Development Administration, 1983. 112 p. In Thai.

This research examines the impact of industrialization on the fertility of rural Thai women. It is hypothesized that actual fertility, intended fertility, and perception of benefits of children is lower among women participating in the industrial sector than among those participating in the agricultural sector. Analysis of data collected through structured interviews with 300 women in Chiang Mai Province shows that fertility level, as measured by number of pregnancies and number of children ever born is lower among industrial workers than farmers. The difference in the average number of children ever born, in particular remains after controlling for educational level birth control practice, and age at first marriage. In addition, it is also found that industrial workers want fewer additional children than farmers. Although the findings do not support the hypotheses on ideal family size and perception of the benefits of children, they lead to the conclusion that woman's participation in industrial occupations tends to reduce the fertility level further.

Descriptors: *Differential Fertility; Socio-economic Development; Thailand*

Source:
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

76. Montri Pekanan. *Impact of village electrification in northeastern Thailand on fertility.* Bangkok, National Institute of Development Administration. n.d. 60 p. In Thai.

This research aims at studying impact of rural electrification on fertility. A total sample of 609 households with married women aged between 15-44 years were randomly selected from two sub-districts, Hua Dorn, a sub-district with electricity, and Chee Tuan, a sub-district without electrification. Both sub-districts are comparable in terms of basic physical infrastructure, distance from highways, district centres and provincial towns.

Analysis of data shows no significant difference in social and economic conditions in the two areas, and that electrification is primarily used for consumption rather than production purposes. However, a greater percentage of Hua Dorn villagers practice family planning than their Chee Tuan counterparts. The former also shows an average lower fertility than the latter. The results of multiple classification analysis and analysis of variance conclusively show that rural electrification is the most significant factor related to fertility, whether fertility is measured by the number of live births or children ever-born during the past four years. The difference exists even between women in the two areas who do not practice family planning. The study concludes that rural electrification is a major development input that has a significant, though unintended, effect on fertility reduction.

Descriptors: *Fertility Determinants; Socio-economic Development; Thailand*

Source:
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

77. Morada, Hector B. and Marietta P. Alegre. *Fertility differentials between Christian and Muslim Filipino women.* Manila, National Census and Statistics Office, 1984. 36 p.

There is a general fertility pattern among Muslim women that is contrary to the traditional belief that Muslim fertility is generally higher than that of any other group in the country. The age-standardized mean number of children-ever-born (CEB) for Muslim groups is generally lower than that for the corresponding Christian group. It is observed, however, that younger ages Muslims exhibit higher fertility levels, but at older ages, Christian continue to bear more children so that ultimately the mean completed family size of Christians is higher than that of Muslims.

Only the Muslim groups of women with at least a high school education and those engaged in gainful activities appear to have higher levels of fertility than their Christian counterparts. These findings emerged from this study, which compares the fertility of Muslim women in Mindanao to that of Christians in the same area in terms of selected demographic, socio-economic and cultural variables found to affect the fertility levels of women in most societies.

Data source for the study was the 1970 Census of Population and Housing conducted in May 1970. Specifically, the study involved the five per cent special enumeration of households in the four provinces of Mindanao, namely: Cotabato, Sulu, Lanao del Sur, and Zamboanga del Sur. Sampled were 20,300 women (10,544 Christians and 9,876 Muslims), 15 years old and over who were either heads of households or spouses of heads of the households, were currently married and living with their husbands and where the couples are both Christians or both Muslims.

Descriptors: *Differential Fertility; Islam; Christianity; Fertility Behaviour; Women; Philippines*

Source:
National Census and Statistics Office
Ramon Magsaysay Blvd., Sta. Mesa
Manila
Philippines

78. Nawarat Plainoi, et. al. *The impact of agricultural land reform on fertility*. Bangkok, National Institute of Development Administration, 1983. 121 p. In Thai.

This research assesses the impact of the Agricultural Land Reform Project as well as the impact of other development projects on fertility. It is hypothesised that after controlling for other development projects, the Agricultural Land Reform project and other development projects affect the fertility level of families living in villages under the project. The data were collected by means of structured interviews with heads of agricultural families living in villages as well as those outside the Agricultural Land Reform project in two communities in the Northeastern region. Altogether, 667 families were interviewed.

The findings from this research indicate that families living in the selected Agricultural Land Reform areas do not significantly differ from those living outside the areas in terms of knowledge about family planning, opinions on the role and economic value of children, and actual fertility or preferred (or desired) family size. However, the former as compared to the latter group show more positive attitudes towards family planning and more practice of family planning. They also are significantly better off in terms of various socio-economic characteristics which are usually found as negative determinants of fertility level. These findings therefore lead to the conclusion that families living in the selected Agricultural Land Reform areas show a positive tendency in lowering their fertility level. Other development projects, namely, roads and water supply, statistically have only a slight impact on fertility.

Descriptors: *Differential Fertility; Agricultural Development; Thailand*

Source:
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

79. Niphon Debavalya. *Female employment and fertility: crosssectional and longitudinal relationship from a national sample of married Thai women.* Bangkok, Institute of Population Studies, 1978. 88 p. (IPS paper no. 24)

This analysis utilizes data collected during the first and second rural and urban rounds of the Longitudinal Study of Social, Economic and Demographic Change to examine the relation between female labour force participation and fertility in Thailand. Economic characteristics including husband's occupation, occupation of woman, woman's work experience before and after marriage, and the interrelationship between duration of work after marriage and number of years married are explored for correlation with cumulative fertility differentials. The impact of children on woman's labour force behaviour and the effect of labour force behaviour on fertility are analysed using data from the second round of the Longitudinal Study. Results of the analysis indicate that there is little "pure" relationship between cumulative fertility and current work status, and that several causal relationships are at work. Women in the modern labour force tend to have lower fertility, presumably because the opportunity cost of children is high. Work for wages or salary before and after marriage appears to have a stronger negative association with cumulative fertility than woman's current labour force status especially in urban areas. Implications of the study are that under-developed countries should encourage and provide opportunities for women of child-bearing age to work outside the home and should encourage women to remain in the labour force throughout their childbearing years.

Descriptors: *Fertility Analysis; Female Employment; Longitudinal Studies; Differential Fertility; Socio-economic Factors; Thailand*

Source:
Institute of Population Studies
Chulalongkorn University
Phya Thai Road
Bangkok 10500
Thailand

80. Niwat Klinngam and others. *The impact of women development project on family planning and fertility.* 1984. 77 p. In Thai.

The purpose of the research report was to investigate the impact of the Women Development Project in Thailand on knowledge of family planning, durable contraceptive use, desired family size, and recent fertility (children aged 0-4 years) of the rural Thai women, in Petchburi Province, south of Bangkok. Three groups of randomized married women aged 45 years and less were interviewed. These three groups are women who participate in the Women Development Project, women who do not participate in the Project, and women who are in the village without Women Development Project.

Using the technique of multivariable analysis, it was found that the Women Development Project had positive impact on knowledge of family planning and durable contraceptive use of the women and had negative impacts on desired family size. It had no significant impacts on fertility. The result from this study confirms that the project is valuable and should be promoted and spread out to other areas for the whole nation in order to alleviate high fertility, especially in the rural areas.

Descriptors: *Differential Fertility; Family Planning; Socio-economic Development; Women; Desired Family Size; Knowledge of Family Planning; Thailand*

81. **Peerasith Kamnuansilpa.** *Socio-economic and demographic analysis of female labour force participation.* Singapore, SEAPRAP, 1978. 53 p. (SEAPRAP research report no. 25)

The data for this study came from 1970 Population Census. The paper presented the characteristics of Thai women in the labour force and the relationship of women participation in labour force to fertility. First of all, it examined the socio-economic and demographic aspects of female labour force participation by region, occupation, marital status, age, religion, education, material possession score, family structure, and migration. The results of the study showed that there was almost no difference in fertility by working status. Employed women on the average have 4.4 children, compared with 4.5 for housewives. The relationship becomes stronger when education is controlled. Limitations of the research include reliance solely on cross-sectional data and use of children ever born to ever married women as a measure of fertility. Policy implications and recommendations for further research are included.

Descriptors: *Female Employment; Differential Fertility; Socio-economic Factors; Thailand*

82. Philippines. Ministry of Education, Culture and Sports. *Human sexuality and reproduction.* Module no. 9 of "A module in population education for elementary and secondary school teachers." Second edition. Manila, 1984. 26 p.

An understanding of the nature of human sexuality and the physiology of human reproduction is an essential component of population awareness. This understanding can help develop a healthy attitude toward sex and lead to desirable sexual behaviour, factors which are important in the acceptance and practice of fertility control.

This module focuses on human sexuality and reproduction. The module defines "sexuality as a quality of malesness or femaleness that determines the anatomy, behaviour, characteristics and personality of the individual through which he is able to procreate or have children, and which determines his relationship with other individual and groups." The module presents factual information on sex education, dealing with the physical and emotional changes that take place during puberty. The discussion on human reproduction deals with the male and female reproductive process, and the process of fertilization. It distinguishes the different organs needed for reproduction and explains how fertilization takes place. Illustrations showing the vital reproductive parts of the body are provided.

Descriptors: *Sexuality; Reproduction; Sex Education; Instructional Materials; Philippines*

Source:
Population Education Program
Ministry of Education, Culture and Sports
Palacio del Gobernador
Intramuros, Manila
Philippines

83. Prapant Svetanant and others. *A comparative study of fertility differentials between rural agricultural and rural industrial populations in northern Thailand.* Bangkok, National Institute of Development Administration, 1983. 106 p. In Thai.

The aim of this research is to study fertility differentials between rural-agricultural and the rural-industrial people in two districts of Chiangmai, namely, Sansai and Sankampaeng. Data show the two districts are similar in a number of social and economic characteristics but differ significantly in their occupation activities. People in Sansai are mostly engaged in agriculture and those in Sankampaeng in traditional rural industries.

The results of analysis show that women who are engaged in different occupational activities differ in their level of fertility, even though the societies in which they live are at the same stage of development. Women in agriculture have higher fertility than those in rural industries. The factors affecting their fertility also differ. Among the rural-agricultural women, exposure to "outside" influences (which includes membership in a social organization, exposure to mass media, travelling experiences to urban areas (Chiang Mai City), knowledge of birth control and frequency of receiving birth control information is the predominant set of factors affecting their fertility. Among the rural industrial women attitudes toward marriage, which include age at marriage, having children, optimum number of children, birth control and birth intervals, are significantly related to fertility. In brief, the rural-industrial women's fertility behaviour is affected by psycho-social factors, whereas their rural-agricultural counterparts are affected by empirical experience in modern ways of life or exposure to outside influences.

Descriptors: *Differential Fertility; Fertility Determinants; Agricultural Development; Socio-economic Development; Thailand*

Source:
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

84. Prapant Svetanant and Phaisal Lekuthai. "Fertility-development interaction: a case study of agricultural cooperatives in Thailand," in: Suchart Prasith-rathsint, ed. *Population and development interaction in Thailand*. Bangkok, Pappim Press, 1983. 23 p.

The study attempts to investigate the relationship between being a member of an agricultural cooperative and fertility behaviour in the Northeast. A sample of 873 households were drawn from three groups of agricultural cooperative villages--very successful, moderately successful and unsucessful cooperative villages. The major findings which confirm the hypotheses are: when cumulative fertility, namely, the number of children ever born is used, the fertility level among members is higher than that of non-members. The results confirm the hypothesis that having many children causes economic problems; hence, a person with many children will be apt to become member of agricultural cooperative with the intension of obtaining some low-interest credit to ease his financial problems. When recent fertility or the number of children ever born in the past three years is issued, the fertility of members is lower than that of non-members. This also confirms the hypothesis that after a person becomes a cooperative member, his activities in the organization should gradually change his attitude and lead to an eventual fertility decline.

Descriptors: *Differential Fertility; Agricultural Cooperatives; Thailand*

Source:
Prof. Dr. Suchart Prasith-rathsint
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

85. Prasert Aeyuichit-aroon. *The impact of the government reforestation programme on fertility*. Bangkok, National Institute of Development Administration, 1985. 184 p. In Thai.

This research studies the impact of the government reforestation programme on fertility. A sample of 364 households with married couples under 49 years of age was drawn from two groups of population, organized reforestation villages and unorganized ones. Statistical techniques include analysis of variance and multiple classification analysis.

The major dependent variables are live births and ideal family size. The major independent variables are type of villages, experience in pregnancy wastage (induced abortion and still births), family planning practices, problems of current number of children. The covariates in the multiple classification analysis include years of the reforestation programme, number of children earning an income, migration experience, and owning agricultural plots in other areas. Each of the dependent variable is subject to multiple classification analysis with the same sets of independent variables and covariates. The results are all consistent.

Data clearly show that living in an organized reforestation village, pregnancy wastage, family planning practices, and problems and benefits of having children are all positively related to fertility. The findings, some of which are unexpected, imply that the villagers practise family planning after they have a large number of children. The villagers feel children are a burden only when there are many; pregnancy wastage is also a key factor responsible for high rural fertility. Family planning services are lacking in the reforestation programme. The study concludes that a development project by itself may not be sufficient to lower fertility; people also need family planning services. It recommends that family planning services should be made available to the reforestation villagers.

Descriptors: *Differential Fertility; Socio-economic Development; Reforestation; Thailand*

Source: National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

86. Rapeepun Jaisaard and Benchavan Tongsiri. *The allocation of mother's time to household and economic activities and its effects on fertility.* Bangkok, National Institute of Development Administration, 1983. 146 p. In Thai.

This research concentrates on how women in rural households allocate their time and what the impact of time allocation on fertility is. A sample of 120 households from two villages - Chomton and Hang Dong - in Chiang Mai Province was selected. Time is classified into four categories: child care time, homemaking time, income-earnings, and leisure. In both villages, women spend a high proportion of their time engaged in economic activities, and their income is a major proportion of the family income.

In the time allocation model, the wife's wage rate is very powerful in determining the time she allocates to economic activities. The number of children under six is the major determinant of childcare time. When the analysis is by agricultural period, the effect of the wife's wage rate on her time allocation varies by period. The effect is positive in the planting and harvesting periods and negative in the land-preparation and crop-care period. The differences in the effect may be due to the sex-oriented agricultural tasks in these periods and also to the lack of sufficient job opportunities.

In the fertility model, the opportunity cost of the women's time used in child care is the most powerful variable, followed by the time allocated to economic activities. These variables have a negative effect on the level of fertility. Therefore, improving employment opportunities both on the farm and in non-farm sectors should induce a fertility decline among rural people.

Descriptors: *Differential Fertility; Time Factors; Women; Thailand*

Source: National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

87. Raymundo, Corazon M. *Young adult fertility in the Philippines; first report.* Manila, Population Institute, University of the Philippines, 1984. 76 p.

This study provides some direction for policies and programmes to address the issue of adolescent fertility. More specifically, it provides a profile of the young Filipino women of today; identifies the magnitude and nature of premarital sexual activity among young adults, discuss their fertility and fertility-related attitudes and identifies some factors that might have triggered premarital sex among young adults.

Major data source for this study was the 1982 Young Adult Fertility Survey (YAFS). YAFS involved a national probability sample of 5,402 married and unmarried female respondents aged 15-24 years. The findings cover the following information: socio-economic and demographic profile of the adult; knowledge and attitudes about population education and family planning, sources of family planning information, attitudes toward virginity and premarital sex, attitudes toward marriage and family formation and premarital sex.

Based on the findings, the following recommendations have been suggested:

1. Adolescent fertility is an issues that merits public attention. Inasmuch as prevention of premarital sexual activities is not possible in the foreseeable future, short-term tasks should be undertaken to reduce the harmful effects of youthful sexual activities.

2. Reduction of harmful consequences can be done by(a) increasing awareness and enlightenment in sexual matters; (b) providing them with wider and more meaningful sex education in school and work; (c) providing individual counselling at more opportune times; (d) providing services which will not exclude providing contraception if necessary; (e) campaigning to make adult members of the society more open and understanding of the plight of the adolescent.

Demography and its bearing on population education

Descriptors: *Adolescents; Differential Fertility; Fertility Determinants; Philippines*

Source: Population Institute
University of the Philippines
Padre Faura Street
Manila
Philippines

88. Samarakkody, Amara. *Woman's status and fertility in Sri Lanka.* Dissertation of State University of New York at Buffalo. Ann Arbor, University Microfilms International, n.d. 136 p.

This dissertation examines the following questions: (1) Does industrialization and emancipation of women from traditional roles necessarily elevate women's position in the family and society?; (2) Can family planning programmes work if women were to enjoy good positions without industrialization? Data necessary to exammine women's position in rural and urban areas are examined and urban-rural fertility differentials are analysed and explained. The impact of colonialism and westernization on women in Sri Lanka is examined, as well as the influence of family planning programmes on the status of women. The evidence demonstrates the fact that industrialization does not always raise women's position in society. In the city, family planning programmes are largely influenced by the attitude of husbands, whereas rural wives make their decisions more freely. The author feels family planning efforts should be concentrated in the rural areas.

Descriptors: *Differential Fertility; Socio-economic Development; Women's Status; Sri Lanka*

Source: University Microfilms International
300, N. Zeeb Road
Ann Arbor, Michigan 48106
U.S.A.

89. Saranya Bunnag. *The impact of the self-help settlement on fertility: a case study of the Taepa self-help settlement community, Songkla Province.* Bangkok, National Institute of Development Administration, 1983. In Thai.

The aim of this research is to measure the effect of land settlement in Taepa on its population fertility. A comparison is made between (a) 325 members of the Taepa settlement community; and (b) 325 members living outside.

The study shows that fertility as measured by the number of live-births is lower in the Taepa settlement than in the non-settlement community, taking into consideration the following factors: period of residence, occupation, age, and education, duration of mariage, family planning, socio-economic status and the ideal number of children a family would like to have. The study also shows a strong relationship between socio-economic factors and fertility.

Descriptors: *Differential Fertility; Fertility Determinants; Socioeconomic Factors; Thailand*

Source: National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

90. Siddhisena, K.A.P. *Inter-district differences in fertility in Sri Lanka, 1963-1971.* Canberra, Australian National University, 1978. 32 p.

According to the author most studies of fertility in Sri Lanka have dealt only with the entire country and have not analysed the patterns and determinants by districts. The main purpose of this study is to fill this gap. The analysis is based upon data for the Department of Census and Statistics for the years 1963-1971. A table gives the urban-rural fertility differences by districts. In all the districts, except Nuwara Eliya, which is a plantation district, and the Colombo district, the rural areas have a higher fertility rate than the urban areas. An interesting facet of this analysis is that religion and ethnicity are determining factors of the variations of fertility in districts. The districts with more Muslims and Tamils tend to have a relatively high fertility than the Sinhalese-dominated areas. Fertility is also affected by education and occupation.

Descriptors: *Differential Fertility; Socioeconomic Factors, Sri Lanka*

Source: Australian National University
G.P.O. Box 4
Canberra, A.C.T. 2601
Australia

91. Sirisena, N.L. *Fertility impact of development in Sri Lanka.* Colombo, Centre for Demographic and Socioeconomic Studies, 1984. 213 p.

This research project is designed to assess the relationship between selected development programmes, socio-economic factors, intermediate variables and fertility at the community and household levels in Sri Lanka. Several important development programmes have been analysed such as land settlement, the guaranteed price scheme and rural electrification. The author has evaluated quantitatively the relative aspect of different programmes. The study brings out a series of important conclusions for future policy formulation with special reference to the size and welfare of the family. This should help the Government to concentrate its investment programme in areas which would bring about a rapid decline in fertility and contribute to economic development. The methodology of research of this study is new to Sri Lanka. It has identified development project areas through the official records on development projects scrutinized by personal observation. The selection of the sample was done through a multi-stage stratified sampling process. The study substantiates the hypothesis that development programmes have a significant impact on fertility. In particular, development programmes determine the levels of income and nature of employment. These two factors, along with a number of other variables have influenced the fertility decision of individual households. Of the six development programmes considered, four have conclusively contributed to a reduction of fertility. Land settlements have the highest fertility levels. Educational attainment is the other important development input that has determined fertility. The use of contraceptives is becoming a significant determinant of fertility. The study reveals that fertility impacts of development programmes are both project and gender specific.

Descriptors: *Fertility Determinants. Socio-economic Factors; Sri Lanka*

Source: Centre for Demographic and Socio-economic Studies Society Limited
Colombo
Sri Lanka

92. Sri Lanka. Department of Census and Statistics. *Socio-economic development and fertility decline in Sri Lanka*. Colombo, 1983. 161 p.

Sri Lanka was selected for a case study of the Expert Group Meeting on Demographic Transition and Socio-Economic Development at Istanbul in 1977. This background paper outlines the social background and economic development strategies of the country and the features of its demographic transition. The paper states that Sri Lanka has entered the third phase of demographic transition, the phase of declining fertility; and this fertility decline has cut across the various socio-economic strata. The conclusions of this analysis of fertility in Sri Lanka are as follows: (1) Female employment has little bearing on fertility; (2) The values and costs of children are diverse and are difficult to evaluate in relation to the decline in fertility; (3) An explanation for the fertility transition has been sought in the ecological and historical factors and the exposure to foreign influence which have made the people of Sri Lanka modern in outlook; (4) High aspirations as a result of a high level of education could have influenced the fertility decline; (5) The determinants of fertility appear to be also related to ethnicity and religion.

Descriptors: *Fertility Analysis; Fertility Determinants; Sri Lanka*

Source: Department of Census and Statistics
No. 6, Albert Crescent
Colombo 7
Sri Lanka

93. Sri Lanka. Department of Census and Statistics. *Sri Lanka contraceptive prevalence survey report 1982.* Colombo, Department of Census and Statistics and Westinghouse Health Systems, 1983. 127 p.

This report carries the findings of a survey conducted in a number of countries under the sponsorship of the Westinghouse Health Systems of the U.S.A. It begins by sketching the background to the contraceptive prevalence survey (C.P.S.) in Sri Lanka and then gives an outline of the methodology used in the survey. There is a comprehensive section on Fertility in Sri Lanka which gives recent trends, current levels, and family size preferences. The question of contraceptive knowledge and use in Sri Lanka is then examined together with the availability of Family Planning Services. The main findings on Fertility could be summarized as follows: There were considerable differentials in observed completed fertility, regionally, culturally and socioeconomically. Overall fertility had risen since 1974. There was a definite preference for small families. Contraceptive knowledge was universal but specific methods were not widely known. There was an increased use of traditional rather than modern methods. The most commonly practised method was female sterilization. Contraceptive use showed considerable variation across sub-classes of the population and there were indications of emerging interest in spacing births. By far the largest source of supply was the government. The direction of further improvement seems to be towards increasing the services and acceptability of efficient non-technical modern methods while maintaining the sterilization programmes.

Descriptors: *Family Planning; Knowledge of Family Planning; Sri Lanka*

Source: Department of Census & Statistics
P.O. Box 363
Colombo
Sri Lanka

94. Suchart Prasith-rathsint. *Ethnicity and fertility in Thailand.* Bangkok, National Institute of Development Administration, 1983. 213 p.

This study is part of the five ASEAN countries on ethnicity and fertility. It covers four major ethnic groups living in all major regions of the country. The total sample consists of 858 Thai, 837 Chinese, 838 Thai Muslim and 587 Southern Thai Muslim couples. It is the first of its kind dealing empirically with a wide range of social, economic and demographic characteristics of the major ethnic groups and their ethnic relations.

The results of the study shows that ethnicity is an unquestionably significant factor in the study of fertility and family planning. Population policies and programmes must therefore be carefully formulated and designed for each ethnic group. It was found that all other ethnic groups have higher fertility than the Thais. The findings on factors affecting fertility of the four ethnic groups further suggest ways and means to influence fertility behaviour of each ethnic group. The factors that have policy implications for fertility reduction are wife's education, age at first marriage, ethnic fertility and child mortality.

The analysis of data shows that the use of effective contraception of all ethnic groups is affected by their access to family planning services. The Thai and Chinese use nearby services while the Muslim prefer distant to nearby services. The use of effective contraception by the Thais and the Chinese is also affected by other social and economic factors such as couple's income, perceived women's role, gender balance and husband's occupation. It has also found that ethnic fertility approval, ethnic affiliation, religiosity and psychic cost of contraceptive are negatively related to the use of effective contraception of the Thai Muslims and the Southern Thai Muslims.

Descriptors: *Ethnicity; Fertility Determinants; Thailand*

Source: National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

95. Suchart Prasith-rathsint and others. *Contraceptive demand and supply survey in Thailand: 1982-1986.* Bangkok, National Institute of Development Administration, 1983. 67 p.

This study attempts to make an in-depth analytical study of Thailand's contraceptive demand and supply, with the more recent demographic data, family planning service statistics and other relevant information. This study relies heavily on statistical analyses. The empirical or statistical procedures used in the study are projection of currently married women at reproductive age, projection of new acceptors by method, projection of active users by method, estimate of contraceptive requirements, and analyses of capacity of local contraceptive production.

It has been found that three type of contraceptives, namely, oral contraceptives, injectable contraceptives, and condoms are produced locally. Two major local manufacturers of oral contraceptives have a total annual production capacity of 3.3 million cycles, which could meet the present demand in the commercial sector (outside National Family Planning Programme). There are at least ten local manufacturers of injectable contraceptives with a local annual production capacity of no less than 7.2 million " 3 months doses". There are two local manufacturers of condoms, one of them has an annual production capacity of 86.4 million pieces. Given enough lead time, most manufacturers interviewed expressed confidence that they could meet the demand for the three above contraceptive products in the next five years.

Descriptors: *Distribution of Contraceptives; Thailand*

Source: National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

96. Supatra Petchmuni. "Incentives and factors affecting desire for a 2-child family in urban and rural areas," in: Suchart Prasith-rathsint (ed.) *Population and development interactions in Thailand.* Bangkok, Pappim Press, 1983. 40 p.

This study deals with an issue of fertility reduction proposed in the Fifth National Economic and Social Development Plan on incentives and disincentives to induce the people to have only two children per family. The study interviews 1,000 currently married women aged 15-45 who live in rural and urban areas of Bangkok and other provinces on their attitudes towards two-child family, and incentives and disincentives toward it. It also studies whether demographic, economic, social characteristics of the respondents are related to actual and desired fertility. Using analysis of variance and discriminant analysis, it was found that desire for a 2-child family is affected by age of spouse, age at first marriage, sex of living children, education, advantages expected from having children, and opinions on possible rewards or incentives.

Descriptors: *Fertility Determinants; Desired Family Size; Socio-economic Factors; Thailand*

Source:
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

97. Tan, Jee-Peng. "Marital fertility at older ages in Nepal, Bangladesh and Sri Lanka," *Population Studies* 37(3): 433-444, November 1983.

This paper is based on the author's doctoral dissertation, "A Comparative Study of the Marital Fertility of Older Women in Nepal, Bangladesh and Sri Lanka". His hypothesis was that marital fertility was reduced when a woman became a mother-in-law or a potential grandmother. In Nepal and Bangladesh this involves sexual abstinence. Of Nepal, Bangladesh and Sri Lanka, the last country is the most modernized. In each country married women aged 15-50 were identified. The sample consisted of women over 30 years of age. In Sri Lanka as there is considerable contraceptive use, the reduction of fertility in grandmothers of child-bearing age cannot be attributed to abstinence of sexual relations. However, the "grandmother" custom in all three countries results in a reduction of fertility. Moreover, this analysis shows that the grandmother practice has a significant impact on both the level and age patterns of marital fertility in the countries surveyed.

Descriptors *Fertility Behaviour; Marital Fertility; Bangladesh; Nepal; Sri Lanka*

Source:
London School of Economics
Houghton Street
London WC2A ZHE
England

98. Thailand. National Statistical Office. *The survey of fertility in Thailand: country report.* Bangkok, 1977. 2 vols.

Findings from the 1975 survey of fertility in Thailand are summarized under several sections: (1) Fertility levels and trends; (2) Nuptiality and exposure to childbearing; (3) Preferences concerning the number and sex of children; (4) Husbands' attitudes; (5) Knowledge and use of contraception; (6) Differentials by background characteristics, and their economic status, with a sample of 4,465 households. Marriage in Thailand is almost universal, with childbearing continuing at a substantial rate through later years of marriage. Husbands reported that the primary advantages of a large family were economic benefits and security. Over 96% of ever-married women reported having heard of at least one modern method of contraception. The percentages who had heard of specific methods were: pill (92%), IUD (86%), female sterilization (87%), male sterilization (70%), injection (70%), condom (45%), and other female methods (22%). About 40% of ever-married women had used at least one modern contraceptive method, with the pattern of use by age and number of living children similar to that in other developing countries. The percentages who had ever used specific modern methods were: pill (26%), IUD (9%), female sterilization (6%), male sterilization (2%), injection (5%), condom (4%), and other female methods (1%). It is clear from the data that there has been a substantial increase in contraceptive practice in Thailand during the past few years, with the highest proportions protected by contraception found in the intermediate age and family size groups.

Descriptors: *Fertility Surveys; Fertility Determinants; Family Planning; Thailand*

Source: National Statistics Office
Lanluang Road
Bangkok 10100
Thailand

99. United Nations. Department of International Economic and Social Affairs. *Fertility levels and trends as assessed from twenty world fertility surveys.* New York, 1980. 299 p.

This study, undertaken by the Population Division of the Department of International Economic and Social Affairs of the United Secretariat, is one in a series dealing with findings from the World Fertility Survey. It is part of a programme of international comparative analysis of data from the World Fertility Survey. WFS birth history data provide evidence for most countries of fertility levels which are as high or higher than previous estimates. Unfortunately, for some of the most populous countries, including Bangladesh, Indonesia and Pakistan, the quality of fertility levels and trends was rated as weak. The South Asian countries that figure in the study are Bangladesh, Indonesia, Malaysia, Nepal, Pakistan, Thailand and Sri Lanka. Nearly all the countries recorded evidence of fertility control except

Nepal where only two per cent of currently married women were using contraceptives. In Sri Lanka declining birth rates were noted, particularly in the under-10 age group. WFS data show higher fertility from 15-19 year-olds in the past and lower fertility in the 20-24 year-old group in the recent period. Estimated total fertility rates show a wide range in the different countries of South Asia from 8.3 to 3.8.

Descriptors: *Fertility Analysis; Comparative Analysis; Asia*

Source: Population Division
Department of International Economic and Social Affairs
United Nations
New York, N.Y. 10017
U.S.A.

100. Zechariah, K.C. "Kerala solution or happenstance?," *Populi* 10(4): 3-15, 1983.

The population growth rate of Kerala, a small Indian State, dropped dramatically while the rest of India's population grew. The author examines this phenomenon. Is there a lesson to be learned or is it an accident? During the 1971-1981 decade Kerala's growth rate dropped from 2.26 to 1.74 per cent annually and the prospects are that it will continue to drop. India's growth rate stayed constant at 2.22 per cent. Kerala is reported to be one of the most successful states of India in family planning practice. The fertility rate declined not only among the rich but also among the illiterate. After examining the situation, the author feels the following conclusions could be arived at from the case of Kerala: (1) A government-sponsored family planning programme can make a dent on fertility; (2) The principal socio-economic determinants of fertility have been mortality decline and educational improvements; (3) Land reforms and other redistributive policies help to spread small-family norms; (4) An increase in age at marriage played a major role in fertility decline. The author feels the determinants of fertility decline in Kerala could be relevant to other Indian States.

Descriptors: *Fertility Decline; Fertility Determinants; Socio-economic Factors; India*

Source: Populi
UNFPA
220 East 42nd St.
New York, N.Y. 10017
U.S.A.

101. Yongyuth Chalermwong. "Development of cottage industries, women's labour force participation, and fertility in rural Thailand," in: Suchart Prasith-rathsint, ed. *Population and development interaction in Thailand.* Bangkok, Pappim Press, 1983. 40 p.

This survey research studies the interrelationship of development of cottage industry, woman's labour force participation and fertility in rural Thailand. Promotion of small-scale industry in rural areas has been specified in the Fifth National Economic and Social Development Plan as one of the strategies used to alleviate rural poverty. Information on all types of economic activities was collected each week for a period of 12 months (from March 1980 to February 1981) from 380 households in 22 villages in three provinces, Khon Kaen, Roi Et, and Chiang Mai.

The results of regression analysis show that female labour force participation has a negative effect on number of children ever-born, implying that efforts aiming at increasing regular hours in productive work among married women in rural areas would reduce unemployment and seasonal migration, which, in turn, would lead to fertility reduction. Family income is found to be negatively related to fertility. These findings support current national policies on poverty alleviation for the rural population through the provision of social and economic opportunities to allow people to improve their income and living standards.

Descriptors: *Fertility Determinants; Economic Factors; Female Employment; Thailand*

Source: National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

SECTION FIVE: MORTALITY

Mortality

This section includes 17 selections. They deal with mortality which refers to the incidence of death in a given population and is a major component of population change. Specifically, they describe mortality levels and trends and differentials and the factors which affect mortality. The mortality incidence can reveal much about a population's standards of living and health care.

Majority of the entries present the vital statistics such as number and rate of total deaths, infant and maternal deaths, life expectancy rate, causes of deaths and factors affecting mortality levels. Most studies have shown that there has been a decline in mortality in Asia as shown by the decrease in the values of the crude death rate and the increases in values of life expectancy at birth. One entry sums up the mortality level in Asia as it states that although socio-economic and health care interventions have reduced the death rate in South and East Asia, the mortality levels and their rate of improvement have been highly uneven between as well as within countries. Causes of deaths are also identified and, by and large, the following major causes are found common in Asia: pneumonia, diseases of the heart and tuberculosis. A discussion of mortality is also most often accompanied by an analysis of factors affecting mortality levels. The selections explain that deaths depend on various factors such as age, sex, socio-economic and political factors, rural-urban environment, environment in general and availability and accessibility of health and medical services. One study, for example, reveals that professional and white-collar workers have longer life expectancy than blue collar workers or farmers. Deaths were found higher for the non-married than the married. Also, in general it was shown that developmental factors were more important than medical factors in explaining the variance in mortality. While one study shows a negative correlation to mortality, another study shows a strong positive relationship between life expectancy and education. One study in Thailand shows that social and economic development have made a significant contribution to mortality decline, far greater than the improvement in the ratio of medical personnel to population. This also holds true with the improvement in educational systems, increasing employment in non-agricultural occupation and the process of urbanization.

About five selections focus on infant mortality. One states that infant mortality rate is considered a sensitive indicator of the socio-economic and health conditions of the community. Generally, most countries in Asia have high infant mortality rate. Studies have shown that parental ability, mother's education, availability of medical facilities and local community development levels continued to have significant independent effects upon infant survival. Mother's age, parity and birth interval, length of gestation have also significant independent effects upon infant mortality. One selection also examines whether or not availability and accessibility of health services contribute to the reduction of infant mortality.

Information on mortality is mostly used and appropriately so in enriching population education contents in health education. Lessons on mortality lead to a discussion of health programmes being undertaken to reduce mortality. Before this is dealt with, however, the following mortality topics are taken up first: trends in mortality, causes of high mortality, causes of mortality decline, relation on mortality to population growth, and measures of mortality. The main entry point in health education is the unit on prevention and control of diseases wherein students are asked to gather information about the health programmes in the community, describe the health programmes aimed at reducing mortality and give opinions on how health programmes can help reduce mortality.

In mathematics, population education lessons focusing on mortality can easily be introduced in lessons that take up demographic processes and measures through the use of graphical representation, operations and properties of real numbers, equation and inequalities. For example, a lesson may aim at developing the skills of the students in computing number of births and deaths per one hundred persons through births per total population and through deaths per total population respectively.

102. Abeywickrema, K.M. "A mortality analysis of a developing country in the demographic transition, Sri Lanka after the eradication of malaria," *Journal of the National Science Council of Sri Lanka* 10(2): 257-308, 14th December 1982.

The author says that the demographic transition in Sri Lanka was brought about quite dramatically through drastic reductions in mortality caused by malaria. Life table methods are used to analyse mortality in the midst of this transition and to compare mortality patterns with that of a population used as a standard, the population of the United States of America. In this article the major causes of death are examined to determine which causes of mortality, if reduced, would raise the life expectancy to that of the standard population. It is concluded that by cutting down childhood mortality alone, the male population could achieve a life expectation comparable with that of the U.S. The author's final comment is that judging from mortality, life expectation and life tables, the population of Sri Lanka seems to have quite a good state of health for a developing country.

Descriptors: *Mortality Analysis; Demographic Transition; Causes of Death; Sri Lanka*

Source: National Science Council
Colombo 7
Sri Lanka

103. Ambannavar, Jaipal, P. *Population.* Delhi, Macmillan, 1975. 122 p. (Second Indian series).

This study was commissioned by the Ford Foundation. It is divided into four chapters. Chapter One and Two deal with mortality. The first chapter entitled "Trends in Fertility and Mortality in India since Independence" makes estimates of the trends in the vital rates of the population since Independence and establishes their levels for the base year 1971, so that these can be used for population projections later. The second chapter uses a component method of population projection and makes estimates of the most probable long-term trends in the size and composition of India's population until such time as India's population grows to twice its size in the 1971 census, that is until the time of the second India. This section entitled "Long-term Prospects of Population Growth" has an important section of "Morality" entitled "Assumptions regarding the course of mortality". It was high and fluctuating during 1881-1921; it declined slowly during 1921-51 and rapidly thereafter. This later decline in mortality was achieved largely through the control of famine and epidemics. After Independence there was overall socio-economic improvement and the rapid growth of public health and medical services, including an extensive programme for malaria eradication. Though mortality is considerably lower now than in the early decades, the tougher struggle still remains against nutritional deficiency and the vulnerability to disease caused by, for example the lack of protected water. The spread of mortality decline in the future would depend upon the prospects for improvements in food production and distribution, provision of safe drinking water in rural areas and growth and functioning of primary health centres.

Descriptors: *Mortality Analysis; Vital Statistics; India*

Source:
The Macmillan Co. of India Limited
4 Community Centre
Naraina Industrial Area, Phase 1
New Delhi 110028
India

104. Bernerji, Debabar. *Health services development in India.* New Delhi, Centre of Social Medicine and Community Health, 1984. 3 p.

The mortality rate per thousand population has been reduced from 27.4 to 14.8 and the life expectancy at birth has increased from 32.7 to over 52. A fairly extensive network of dispensaries, hospitals and institutions providing specialized curative care has been developed and a large stock of medical and health personnel of various levels has become available. In spite of such impressive progress the health picture of the country constitutes cause for serious and urgent concern. The mortality rates for women and children are distressingly high, almost one-third of the total deaths occur among children below the age of 5 years, infant mortality is around 129 per thousand live births and the extent of malnutrition is so high that it often leads to mortality.

Descriptors: *Mortality Analysis; Vital Statistics; Health Services; India*

Source:
Centre of Social Medicine and Community Health
School of Social Sciences
Jawaharlal Nehru University
New Delhi
India

105. Dutta, M. and P.N. Kapin. "Trends and differentials in infant mortality in India, 1950-1978," in: *Mortality in South and East Asia; review of changing trends and patterns 1950-1975.* Report and selected papers presented at the Joint WHO/ESCAP meeting held in Manila, 1-5th December 1980, n.p., 1982, p. 215-232.

The infant mortality rate is considered a sensitive indicator of the socio-economic and health conditions of the community. In 1964 the annual report of the Sanitary Commissioner of India showed the annual infant mortality to be as high as 400 per thousand live births. In 1978 it was 125 per thousand live births. This is still high. Differences in the rates in the constituent states do not suggest any regional geographical pattern. The educational status of women, and availability of water supply, medical facilities and social amenities have an influence on the mortality of infants. The contribution of neo-natal mortality to total infant mortality has increased only marginally during the past two decades. The leading causes of death in the rural areas have been prematurity, pneumonia , typhoid, malaria, tetanus and bowel diseases. In the urban areas prematurity followed by infective and parasitic diseases and diseases of the respiratory system constitute the main causes of infant mortality. The mortality rate was found to be higher for both the young and relatively older mothers as compared with those of the middle of the reproductive age span. Women marrying below the age of 18 had an infant mortality rate of 70 while those marrying at the age of 21 or over had a rate of 46. Thus there appeared to be distinct advantages in raising the age at marriage, as infant mortality is reduced to some extent. The rates of urban areas were lower than rural areas. This could be attributed to better medical facilities, socio-economic conditions and an improved supply of drinking water. This article deals with mortality analysis which is a key component in monitoring progress towards a better life for all, and so is valuable in its context.

Descriptors: *Mortality Analysis; Infant Mortality; Causes of Death; India*

Source: World Health Organization
1211 Geneva 27
Switzerland

106. Engracia, Luisa T.. *Infant mortality and health services in rural Philippines.* A paper presented at the 6th National Population Welfare Congress, Philippine International Convention Center, Manila, November 17, 1983. 19 p.

This study examines whether or not the availability and accessibility of health services contribute to the reduction of infant mortality.

According to the 1978 Republic of the Philippines Fertility Survey (RPFS), the country has an infant mortality rate (defined as deaths during the first year of life per 1000 live births) 51.7 and is characterized by urban-rural differentials. Infant mortality rate in the urban areas is 44.9; in rural areas it is substantially higher at 65.8. Much of this difference is due to large differences in post-neonatal mortality (deaths after the first but before the 12th month of life); in urban areas the postneonatal mortality rate is only 23.1 compared to 41.4 in rural areas. In terms of neo-natal mortality (deaths during first month of life), the rates in the two areas are almost similar: 21.8 and 24.7 for the urban and rural areas, respectively. Betwen neonatal and postneonatal mortality, the former is caused by endogenous factors (birth injuries, congenital malformation) while the latter is mainly due to exogenous or environmental factors (e.g. sanitation) and are therefore sensitive to medical, nutritional and child care factors.

Using data mainly from the 1978 RPFS, the study examines the possible effects of the availability and accessibility of health services and several socio-economic variables on infant mortality. The socio-economic variables considered are: mother's education and father's acceptance at the individual level, and presence/availability of electricity and an indoor toilet at the household level. The analysis is limited to rural barangays.

Here are the findings:

1. None of the socio-economic variables showed significant effects on neonatal mortality while with respect to postneonatal mortality, education proved to have a dominant effect.
2. Among the types of health facilities[1] available, the availability and accessibility of a midwife or nurse, hospital and primary care centers were found significant in reducing neonatal mortality. Midwives and primary care centers are generally most involved in the care of infants, and this may explain their influence in determining the survival of the newborn. The presence of hospitals may have led mothers to avail of their services for child delivery and even for post-partum maternal and child care.
3. For postneonatal mortality, only the services of a health worker and a hospital proved to have an impact on the rate of neonatal deaths.

The findings indicate the importance of the availability and accessibility of health services in reducing infant mortality rate. Since majority of rural residents still live in areas that lack health facilities or are far from them, much remains to be done before the country can realize its objective of providing health for each Filipino.

Descriptors: *Infant Mortality; Health Services; Philippines*

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[1] Refers to doctor, midwife/nurse, traditional birth attendant, health worker, hospital, primary care centre and dispensary or drugstore.

Source: Commission on Population
SWADCAPP Building
Off Villamor Interchange
Makati, Metro Manila
Philippines

107. Flieger, Wilhelm, and others. *On the road to longevity: 1970 national, regional and provincial mortality estimates for the Philippines.* Cebu City, San Carlos Publications, 1981.

Most available Philippine mortality estimates were undertaken based on the assumption that the mortality level is uniform throughout the country. Thus, most estimates were prepared for the country as a whole, and few were done for the regional and provincial levels. The present study departed from this common practice by presenting mortality estimates for the Philippines and for its geographical sub-division (regions and provinces).

The crude death rate estimated for 1970 is 11.5 for males, 10.2 for females and 10.8 for both sexes. A comparison of these estimates with those prepared for 1960 when they stood at 13.7 males and 11.8 for females would show an overall mortality decline of 15 per cent. The 1970 mortality estimates also indicate substantial regional differentials. The crude death rates varied from a high of 14.2 per thousand population in Region 9 to a low of 9.6 per thousand in Region 3 and 4.

Life expectancy at birth also varied across the regions. In Regions 3 and 4, life expectancy at birth was 62 years while in Mindanao, life expectancy at birth was less than 50 years for males and around 50 for females. Variations in mortality can also be noted at the provincial level. High mortality prevailed in many provinces of Northern Luzon, the Visayas, and Mindanao. Low mortality prevailed in the provinces of Central and Southern Luzon.

Improvements in the Philippine mortality situation have been rapid and significant over the past years. Variations in regional and provincial mortality indicate that the entire population has not been able to share in these improvement.

Descriptors: *Differential Mortality; Mortality Analysis; Philippines*

Source: San Carlos Publications
San Carlos University
Cebu City
Philippines

108. Frenzen, P.D. and Demix P. Hogan. "The impact of class education, and health care on infant mortality in a developing society: the case of rural Thailand," *Demography* 19(3): 391-408, August 1982.

Demographic and socio-economic factors affecting mortality in rural Northern Thailand are examined using lag-linear modified multiple regression models and data drawn from a representative sample of married couples in Chiang Mai and Chiang Rai provinces. It was found that the same demographic factors that affect infant survival in other populations did so in this population. Mother's age, parity and birth interval, length of gestation, and experience of pregnancy loss had significant independent effects upon infant mortality. An infant's year of birth was also significantly related to infant mortality. However an infant's sex did not affect its chances of survival in Northern Thailand.

Parental ability, measured by father's social class, mother's health information, and local community development levels, continued to have significant independent effects upon infant survival. Parental willingness, measured by parents beliefs about inter-generational wealth transfers, no longer had a significant effect net on other social variables, but infant survival was still affected by whether both parents wanted a birth or not.

Descriptors: *Infant Mortality; Socio-economic Factors; Thailand*

Source: Population Association of America
806 15th St., N.W.
Washington, D.C. 20005
U.S.A.

109. Govind, Ram Agrawal and Rajendra Prasad Shrestha. *Health care system in Nepal.* Kathmandu, Centre for Economic Development and Administration, 1984, p. 1-6.

The Introduction to this booklet and the section entitled "Health Care System in Nepal" gives the picture of mortality in the country. Although health facilities are low, the efforts made in the past two decades have resulted in a decline of mortality. Life expectancy is only 46 years, the crude death rate is 22.2 and the infant mortality rate is 133.6 per 1000 life births. Female infant mortality is much higher than the male, which is indicative of better care for sons in this small mountainous country. Another reason for high mortality is that only a very small percentage of the country's population is within five miles distance of modern health services.

Descriptors: *Mortality Analysis; Health Services; Nepal*

Source: Centre for Economic Development and Administration
Tribhuvan University, Kirtipur
Kathmandu
Nepal

110. Knodel, John and Apichat Chamratrithirong. *Infant and child mortality in Thailand: level, trends, and differentials as derived through indirect estimation techniques.* Honolulu, East-West Population Institute, 1978. (EWPI paper no. 57)

The application of techniques designed to estimate indirectly the levels of infant and child mortality from survey and census data on the proportion dead among children ever born permits one to expand substantially one's knowledge of trends and differentials in infant and child mortality in Thailand. The registration data are seriously deficient. Although the indirect estimation techniques may under-estimate mortality to some extent, comparisons with independent estimates derived from a dual record system approach suggest that the discrepancies are generally quite moderate.

Results from the study confirm a trend toward lower infant and child mortality over the recent past as well as the existence of moderate regional mortality differentials and very substantial urban-rural mortality differences in Thailand. They also reveal substantial socio-economic differentials in infant and child mortality and suggest that the overall level would be considerably reduced if the same health care were provided for the rural and socio-economically disadvantaged populations as is apparently enjoyed by the numerically small, advantaged groups in urban areas.

Descriptors: *Infant Mortality; Child Mortality; Mortality Analysis; Thailand*

Source: East-West Population Institute
East-West Center
Honolulu, Hawaii 96848
U.S.A.

111. Mahmud, Siraj Ul Haq. *Primary health care in Pakistan.* Islamabad, Planning and Development Division, 1983, p. 23-26.

The health situation in Pakistan is characterized by a high birth rate, high infant mortality, high child mortality and high maternal mortality. The crude death rate which was 40/1000 in the early sixties has now declined to the present rate of 11/1000. The main causes of death are infections and respiratory diseases, accidents, malignant tumours and tuberculosis. With regard to children about 10 per cent die before reaching the age of 5 years. Pakistan thus loses about 700,000 children of this age group annually. This is an alarming situation. The main causes of death of children are diarrhoea, pneumonia, low birth weight and inadequate care of children, mainly owing to ignorance of mothers. Health education of mothers should be an important priority in the primary health care programme in Pakistan.

Descriptors: *Mortality Analysis; Causes of Death; Health Services; Pakistan*

Source:
Planning and Development Division
Government of Pakistan
Islamabad
Pakistan

112. Meegama, S.A. *Socio-economic determinants of infant and child mortality in Sri Lanka: an analysis of post-war experience.* The Hague, International Statistical Institute, 1980. 55 p. (Scientific reports no. 8)

This monograph is written for the World Fertility Survey, an international research programme to assess the current state of human fertility throughout the world. It assesses the problem of infant and child mortality, and traces mortality trends in the country. There is also a search for causes and comments on the rapid mortality decline in Sri Lanka in the immediate post-war years. The factors affecting mortality which are analysed here are: (1) Demographic; (2) Economic and political; (3) Environmental; (4) Medical and health care; (5) Cultural; and (6) Geographic. The evidence points to malnutrition among mothers, lack of ante-natal care, lack of trained midwives and a low level of institutional births as accounting for the high infant mortality rates on the estates. It is also found that there is a high level of neo-natal deaths as compared with other countries.

Descriptors: *Infant Mortality; Child Mortality; Causes of Death; Socio-economic Factors; Sri Lanka*

Source:
The International Statistical Institute
428 Prinses Beatrixlaan
Voorburg, The Hague
The Netherlands

113. "Mortality in Asia," *W.H.O. Chronicle* 35(5): 161-200, 1981.

Although socio-economic and health care interventions have reduced the death rate in South and East Asia, the mortality levels and their rate of improvement have been highly uneven between as well as within countries. Life expectancy at birth varies from 50 years in Nepal to 70 years in Japan. In Sri Lanka where there has been a multi-pronged attack on disease, the decline in mortality continues unabated but in Bangladesh and India mortality has decreased at a slower rate, while death rates are high. The class structure of the poor peasants weighs heavily against social changes and militates against the acceptance of new medical technologies. Infant mortality, has similar inter-country variations. A map shows infant mortality in South and East Asia. The mortality rate varies from under 25 infant deaths per 1000 live births to over 100 infant deaths per 1000 live births. The major health problems remained by and large the same between the 1950s and the 1970s. The eradication of smallpox has been a positive step forward and the resurgence of malaria has been a retrogade step. Malnutrition, diarrhoeal diseases and communicable diseases have been persistent. The rapid growth of cancer, cardiovascular diseases and accidents have been alarming in the past decade. There are also drastic variations in age and sex groupings with regard to mortality. In Bangladesh mortality among children in the under 5-year age group is very high among the poor. The level of child mortality declines with increases in the mothers' educational levels in Bangladesh, India, Sri Lanka and Thailand. Paternal education has also an important, though slightly smaller impact. The food crises recorded in Bangladesh and Sri Lanka in the mid 'seventies were accompanied by about 100 per cent increase in mortality among infants, children and the aged. In fact, specific health policies will have to be considered to alleviate the problems of disadvantaged and high-risk groups.

Descriptors: *Mortality Analysis; Infant Mortality; Causes of Death; Health Services; Asia*

Source: World Health Organization
1211 Geneva 27
Switzerland

114. Osman, Haider Chowdhery. *A country paper on primary health care, sanitation, nutrition and environmental pollution in Bangladesh.* Dhaka, Bangladesh Institute of Development Studies, 1984.

Section IV in the book "Health Conditions in Bangladesh" gives a picture of disease leading to mortality. Table 5 gives "General ideas of health in

Bangladesh". Infant mortality is 140 per 1000 live births, child mortality is 23 per 1000 live births and maternal mortality is 30 per 1000 live births. Neo-natal mortality rate is 80. The crude death rate is 16.75 and the crude birth rate is 43.25. Life expectancy at birth is only 47 years. The general feature of the health situation are indicative of a very poor level of health by almost all indices - clinical, demographic and nutritional. The crude death rate is very high, although there is a wide variation according to age and income group.

Descriptors: *Mortality Analysis; Causes of Death; Vital Statistics; Bangladesh*

Source: Bangladesh Institute of Development Studies
Adamjee Court, Motijheel C.A.
Dhaka 2
Bangladesh

115. Ratherford, R. and others. "The impact of alternative mortality assumptions on own-children estimates of fertility for Thailand," *Asia and Pacific Census Forum* 6(3): 5-8, February 1980.

This paper attempts to assess the general magnitude of own-children fertility estimates by generating and comparing several sets of own-children fertility estimates from the 1970 Census of Thailand, based on three different mortality assumptions: (1) mortality was constant during the 15 years previous to the 1970 Census at specified levels; (2) mortality conforms to a set of changing life tables, the estimates in these cases deriving from different calculations. To illustrate the impact of the different mortality assumptions, own-children fertility estimates are examined by region, rural-urban residence, and education. It was found that the error in own-children fertility estimates caused by using constant mortality is small, less than 2% for Thailand. The error in regional fertility estimates is also 2% or less, and the errors in residence-specific and education-specific fertility estimates are also small, less than 5 and 8%. Unfortunately, the assumption of similar mortality across geographic sub-divisions and socio-economic characteristics results in errors of own children fertility estimates for these factors that are not directional. Given the positive association between mortality and fertility levels, the result shows that fertility levels are usually underestimated. Although absolute errors in estimates fertility differentials are small, relative errors are frequently large.

Descriptors: *Mortality Analysis; Differential Fertility; Thailand*

Source: East-West Population Institute
East-West Center
Honolulu, Hawaii 96822
U.S.A.

116. Simeonov, L.A. *Better health for Sri Lanka.* New Delhi, World Health Organization, 1975. 315 p. (Report on a health manpower study).

The factual base for this book was provided by the National Health Manpower Study. The study begins with a short review of the geo-physical characteristics of Sri Lanka, its history, population, ethnic groups, social system, education, labour force, employment and the national economy. There is also a review of the existing health care services, which include the state and the private sectors and western and indigenous practices. The author then goes on to discuss the rapid growth of population and the decrease in mortality which has not been followed by an adequate decrease in fertility. The major diseases are respiratory diseases, malaria, T.B., leprosy, filaria, V.D. and bowel infections. Anaemia and malnutrition also present major problems. A number of tables giving details of health manpower in relation to disease problems are presented. The author comes to the conclusion that with the many defects in the health care system, the population is fortunate to have access to services less than 8 miles from any home. One in every 200 Sri Lankans is engaged (full or part-time) in the health industry. There is a set of future manpower requirements for an optimum health programme. The study stresses the need for integration of the Western and Ayurvedic systems so as to control morbidity and further lower mortality rates in the island.

Descriptors: *Health Services; Programme Manpower; Sri Lanka*

Source: World Health Organization, Regional Office for South East Asia
Indraprastha Estate, Ring Road
New Delhi 110001
India

117. Suchart Prasith-rathsint, and others. *Socio-economic correlates of mortality in Thailand.* Singapore, Institute of Southeast Asia Studies, 1984. 40 p.

In this study, data are derived from various sources such as the 1970 and 1980 Population and Housing Censuses of the National Statistical Office, Reports of the Division of Registration, Department of Local Administration, Ministry of Interior, and reports of the Division of Health Statistics, Ministry of Public Health.

The analysis is divided into 3 parts. The first part uses hierarchical regression of cross-sectional data with time lag on some of the independent variables. The second part employs hierarchical regression analysis of change in the values of the independent and dependent variables. The final one uses path analysis of the causal ordering of all the variables involved. The independent variables were grouped into six sets. These are health, rural-urban environment, educational, economic, household environment and demographic variables. The dependent variables are crude death rate, and infant mortality North and West Models.

The results of data analysis showed that social and economic development in recent years have made a significant contribution to mortality decline far greater than the improvement in the ratio of medical personnel to population. Improvement in the Thai educational system, increasing employment in non-agricultural occupations, and the process of urbanization with the concomitant provision of public utilities are major factors that affect mortality decline in the past decade.

In addition it has been found that general improvement in public health services contributes more to a recent mortality decline than the improvements in medical field. It has also been argued that the improvement in medical service will become a crucial factor affecting a decline in mortality only when it is of a sufficiently critical volume and has an adequate coverage to benefit the rural people. At present, the ratio of medical personnel to population is too low to reach the great majority of the Thai people who live in the rural areas and thus affect a significant decline in mortality. Investment in public health yields more benefits than investment in medical field.

Descriptors: *Mortality Analysis; Socio-economic Factors; Health Services; Mortality Decline; Thailand*

Source: Institute of Southeast Asian Studies
Heng Mui Keng Terrace, Pasir Panjang
Singapore 0511
Republic of Singapore

118. Zablan, Zelda C. "Trends and differentials in mortality," in: Mercedes B. Concepcion, ed. *Population of the Philippines: current perspectives and future prospects.* Manila, National Economic and Development Authority, 1983, p. 78-111.

Various measures of mortality such as the crude death rate, age-specific death rate, infant mortality rate and life expectancy at birth are used in this study to examine mortality trends and differentials in the Philippines. Data were drawn from the vital registration system, surveys, and censuses conducted at different time periods.

The major findings are:

1. There has been a decline in mortality in the Philippines as shown by: the decline in the values of crude death rate, age-specific death rate, and infant mortality rate; and the increases in values of life expectancy at birth. The crude death rate was put at 58.0 in 1913 and 8.7 in 1975; five-year average infant mortality rates of 157.3 for every 1000 live births from 1926 to 1930 and 58.1 per 1000 live births in 1973-77. Life expectancy at birth was recorded at 56.5 in 1965 and 61.6 in 1980.

2. The general increase in life expectancy at birth were not uniformly observed across geographic and socio-economic sub-groups of the country. Metro Manila, Ilocos, Mt. Province, and Central Luzon maintained positions of advantage relative to the average national life expectancy at birth over observation periods starting from 1965.

3. Professionals and white-collar workers have longer life expectancy than blue-collar workers or farmers. Of the variables studied, education was found to be negatively related to mortality. Death rates were found higher for the non-married than the married. Single, widowed, separated, and divorced males were found more disadvantaged than their female counterparts.

4. Analysis of the relative effects of medical and developmental factors on mortality showed that in general, developmental factors were more important than medical factors in explaining the variance in mortality across regional sub-divisions of the country. Among the developmental factors considered, only literacy showed a statistically significant relationship with life expectancy at birth.

Descriptors: *Differential Mortality; Vital Statistics; Philippines*

Source: National Economic and Development Authority
Amber Avenue, Pasig
Metro Manila
Philippines

SECTION SIX: MORBIDITY

Morbidity

Eight selections are abstracted in this section. They deal with morbidity which refers to diseases and illness in a population. The materials specifically present morbidity trends and patterns, their determinants and consequences.

Six of the eight selections present statistics on morbidity incidence showing in some cases the top ten leading causes of morbidity. For example, in the Philippines, one selection identifies these to include influenza, gastroenteritis, colitis, tuberculosis, pneumonia, malaria, dysentery, measles, whooping cough, malignant neoplasm and infectious hepatitis. The causes of morbidity in all the countries of South Asia are similar, although disease occurs at varying levels of intensity. Malnutrition, resurgence of malaria, diarrhoeal and respiratory diseases have dominated the health scenario from the 1970s, while cardiovascular diseases have emerged recently as a health problem. The profile or characteristics of those who get certain types of diseases are described in terms of age, occupation and socio-economic variables. One selection pinpoints what type of disease is most prevalent in certain areas of the country. Multivariate analysis has also been used by some studies to determine the factors that affect the morbidity rate or incidence. The findings show the following factors: age, environmental conditions such as quality of drainage and ventilation, pollution, traditional beliefs and health knowledge, demographic and socio-economic characteristics. Two abstracts look into the causes of morbidity in the context of health programme such as lack of health facilities and severe shortage of medical personnel. They also discuss how better primary health care can improve the morbidity situation. Among the health strategies that are recommended in some of these selections are: sanitation programmes, diarrhoeal diseases control programmes, more comprehensive primary health care, epidemiology, maternal and child health care, etc. Two entries also cover infant mortality and health problems and morbidity patterns of adolescents in urban communities.

Information on morbidity underscores the significant role that health education can play in reducing morbidity. In this context, the importance of including morbidity in the curriculum guide for health gains attention specially when students are made to realize the necessity for health and health measures through a discussion of morbidity and mortality vis-a-vis population. Morbidity data, a discussion of health situation in the country including lack of required services, personnel and facilities can be related to a discussion of family size at the micro level and overpopulation at the macro level. The entry point for these concepts in health education can be the unit on hygiene for the individual and the community. This unit can make the pupils understand the principles of personal hygiene and to inculcate in them the habit of maintaining personal hygiene; to understand the impact of personal hygiene on community hygiene and its role in the promotion of national health and prevention of diseases and morbidity.

119. Cruz-Cailao, Regina M. "The health problems and morbidity patterns of Filipino adolescents in an urban population - the primary health care approach," *Journal of Pediatrics* 28(3): 100-110, May-June 1979.

A primary health care facility for adolescents in Metro Manila was set up. The core staff consists of a full-time physician-coordinator, three pediatricians, a nurse-midwife, and a part-time child psychiatrist.

A study was made of 124 adolescents (43 males and 81 females) in the 10-20 age group who availed of the services of the unit within a 12-month period (January-December 1977). A complementary study of preliminary data from the knowledge-attitude-practice survey was also conducted to determine the areas of concern that may not be detected in the clinic-based study. A total of 124 normal adolescents (60 per cent females and 40 per cent males) served as respondents.

The paper reports on the findings of the clinic-based study and the KAP survey. The clinic-based study reveals that 28 per cent of the girls interviewed had not experienced menarche, and all were within the early adolescent age group; 72 per cent of the girls had had menarche, the youngest being 10 years old and the oldest, 21. Around 25 per cent of the girls experienced menarche at age 12, and 17.3 per cent at age 11. Menarche at adolescence was significantly low at 3.7 per cent. The study found that regular menses of the respondents was inversely related to the interval between age at menarche and the girl's actual age. The shorter the interval, the greater the occurrence of irregular menses. The study failed to determine the pubertal changes among the male respondents.

The KAP survey yielded these significant findings:

1. Health status was regarded satisfactory by 64.4 per cent of the respondents; 16.3 per cent rated their health status good; while 9.6 per cent said they have poor health status.
2. Fifty three per cent felt their weights were just right; 12 per cent, overweight, and 37 per cent underweight.
3. Parents were most often sought by younger adolescents for advice, while peers were most often sought by late adolescents.
4. Some problems that caused most anxiety among the respondents are those related to school work, family relationship, self-identity, ambitions, health, religion, peer relationships, and money.

Based on these findings, the author recommends a practical approach to meet the needs of adolescents. This approach would "consist of utilizing existing services and traditional means of access to adolescent population to deliver not only curative but also preventive and rehabilitative measures."

Descriptors: *Health Services; KAP; Adolescents; Philippines*

Source: Philippine Journal of Pediatrics
Philippine Medical Association
North Avenue
Quezon City
Philippines

120. Cuyugan-Belmonte, Carmelita. "Child health in the Philippines," *Philippine Journal of Pediatrics* 32(4): 141-170, October-December, 1983.

Data on the status of child health in the Philippines are presented in this article.

In 1960, there were 15.76 million children (0-20 years) in the Philippines. Of these 15.76 million, 6.64 million were in the 0-6 age group, 5.92 million in the 7-14 age group and 3.38 million in the 15-20 age group. In 1980, child population stood at 26.40 million, 9.86 million of which were 0-6 years old, 9.85 million, 7-14 years, and 6.69 million, 15-20 years old.

Data revealed that the five leading causes of morbidity among children for the 1980-82 period were pneumonia, bronchitis, tuberculosis, and gastroenteritis. During the same period, the causes of hospitalization among children were identified as pneumonia, gastroenteritis, neonatal sepsis, bronchitis, asthma and energy protein undernutrition. Infant mortality has gone down from 72/1000 live births in 1977 to 60.4/1000 live births in 1982. The five leading causes of mortality in infants under one month of age were birth injuries, asphyxia and infections of newborn, immaturity, pneumonia, congenital malformation and congenital debility.

Data also indicate an increase in life expectancy. An infant born in 1977 is expected to live an average of 61 years, while a child born in 1982 is expected to live an average of 63 years. The author considered breastfeeding and immunization as means through which infant mortality can be reduced. There is a prevalence of undernourishment among children. The combined number of moderately and severely undernourished pre-school children dropped from 2.2 million in 1978 to 2 million in 1980, and that of moderately and severely undernourished school children from 2.7 million in 1978 to 2.1 million in 1980. Data also indicate a positive correlation between child's weight and family income, and child's height and family income.

The author sets forth conditions which can help improve the situation of the Filipino children. Primary health care, coupled with socio-economic development and education can help reduce the critical problems of health and nutrition among Filipino children.

Descriptors: *Child Health; Causes of Morbidity; Infant Mortality; Life Expectancy; Philippines*

Source:
Philippine Journal of Pediatrics
Philippine Medical Association
North Avenue
Quezon City
Philippines

121. Govind, Ram Agrawal and Rajendra Prasad Shrestha. *Morbidity*. Kathmandu,Tribhuvan University, 1984, p. 3-9.

The health status of the people is low. Safe water is available only to a limited extent. In the rural areas only 5.2 per cent of the rural population had access to potable drinking water. The majority of people are deprived of health facilities. There is a severe shortage of medical personnel. The doctor/population ratio in 1980 was 1:32267. There are no hospital beds in 13 mountainous and 9 hill districts. Women in Nepal are married early and become pregnant in adolescence. There is great risk of complications in childbirth. Diphtheria, tetanus, whooping cough, diarrhoea, malnutrition and other infectious diseases are widely prevalent and constitute the major causes of morbidity. Table 2 gives the incidence of communicable diseases. Complications of pregnancy account for the major load of hospital morbidity. The second largest group of diseases seem to be ineffective and parasitic diseases. There has been a rise in hospital morbidity in 1978-1979 which has been mainly due to the rise in complications of pregnancy. Table 3 gives hospital morbidity patterns in different periods. The distribution of hospitals favours the urban areas while a large proportion of the population live in rural areas.

Descriptors: *Health Services; Causes of Morbidity; Nepal*

Source:
Tribhuvan University
Kathmandu
Nepal

122. Indian Council of Medical Research. *Health for all; an alternative stratgy*, New Delhi, Indian Council of Medical Research and Indian Council of Social Science Research, 1980, 156 p., appendices.

This report states that the objectives of the national health policy should be to provide health for all by the year 2000. If this goal is to be realized, a major programme for the development of health care services is necesary, supported by a programme in nutrition and improvement in the environment and health education. Specific programmes should be developed for nutritional disorders such as iron deficiency, anaemia, vitamin A and iodine deficiencies. Communicable diseases still form the largest cause of morbidity and mortality in India, and the fight against them should be continued with greater vigour in the coming years. By 2000 AD the object should be to control the major diseases: diarrhoeal diseases, tetanus, diphtheria, hydrophobia, poliomyelitis, tuberculosis, malaria, filariasis and leprosy. The priority areas in research should be primary health care, epidemiology, communicable disease with special emphasis on diarrhoea, indigenous medicine, health implications of industrial development and family planning. There has been a steady decline in the death rate from 27.4 in 1941 to 1951 to 15.2 in 1971-1981. However, mortality rates among children are still high. IMR is 120 per thousand live births, which is higher than in Sri Lanka, a small island. Although small pox has been eradicated and cholera and malaria are controlled, the overall picture of morbidity has not changed much. In both morbidity and mortality there are variations from state to state, Kerala being a very low infant mortality and others very high. The integrated programme of development to be pursued within the next 20 years should be basically aimed at reducing poverty and inequality and improving the status of women, children and deprived groups. The appendices carry detailed information of the health services of India and health statistics.

Descriptors: *Health Policy; Health Services; India*

Source: Indian Council of Social Services, Research and Medical Research
New Delhi
India

123. Layo, Leda L. "Morbidity and the Philippine welfare in the year 2000," in: *Population, resources, environment and the Philippine future; a final report.* Volume IV-I DAP/UPSE/UPPI, p. 208-381.

The first section of this report presents a conceptual framework for the study and understanding of morbidity issues that are relevant to the year 2000. This was done through a selective and intensive review of literature on the determinants of morbidity patterns. The findings of the studies reviewed lend support to the major proposition presented: that morbity is a function of demographic, socio-economic, cultural, environmental and medical care factors. Morbity problems, therefore, should be viewed with this holistic perspectives.

The second section examines existing Philippine data on morbidity and the morbidity problems existing at the national, regional and provincial levels. The ten leading causes of morbidity were found to be influenza, gastroenteritis and colitis, tuberculosis, pneumonia, malaria, dysentry, measles, whooping cough, malignant neoplasm and infectious hepatitis. The author brings out the need for a national perspective plan for health. It is just as important, however, to have regional and provincial perspective health plans since there are special morbidity problems which are not common to all. Health education at the mass level is also recommended. Health education, if effective, can be a vital factor that can raise the health status of the population.

The third section provides a brief description of the health survey that was conducted in 1975. It discusses the distribution and prevalence of morbidity problems based on this survey and presents the results of the multivariate analyses that were done in order to determine the predictors of morbidity. The health survey involved interviews of a randomly selected national sample of 3,000 households. The interviews investigated respondents' (a) morbidity experience, i.e., acute illness, chronic illness and accidents, and physical disabilities; (b) use of and reactions toward health personnel and facilities; (c) health beliefs and knowledge and (d) demographic, socio-economic and environmental characteristics that were hypothesized to have a significant impact on morbidity.

Data from the health survey reveal that diseases of the respiratory system is the leading illness of the population, comprising about 30 per cent of all acute illnesses. Of the chronic illnesses, arthritis and rheumatism were found to be most prevalent. Blindness and deafness were found to be the most frequent physical disabilities present in the household. Data also indicate that of all morbidity cases, acute illness is experienced most by the households. This is followed by chronic illness, physical disability and accidents.

Following are the findings of the multivariate analyses: (1) Age is the most significant predictor of morbidity in households. For total and acute illnesses, the most significant predictor is the number of children 0-5 years old; (2) For chronic illnesses, the most significant predictor is the number of household members over 64 years old; (3) The second best predictors of morbdity are the environmental variables of quality of drainage and quality of ventillation; (4) Traditional health beliefs and health knowledge have a consistent positive although small effect on morbidity, particularly total and acute illnesses. Traditional health beliefs and low health knowledge were found to be directly related to total illnesses in the household; (5) Levels of education higher than elementary education appears to have a slight negative effect on total and chronic illnesses.

Descriptors: *Health Conditions; Health Surveys; Health Policy: Phipines*

Demography and its bearing on population education

Source: University of the Philippines
School of Economics
Diliman, Quezon City
Philippines

124. Mahmud, Siraj Ul Haq. *Primary health care in Pakistan.* Islamabad, Planning and Development Division, Ministry of Health, 1983.

A chapter of this book, "Current Situation of Health Status" gives details of morbidity. The disease pattern is characterised by high morbidity owing to infectious and communicable diseases. The most common illnesses among children are measles, whooping cough, tetanus and diarrhoeal diseases. It is estimated that 1.6 million persons have radiologically active T.B. and seven per cent of children less than five years of age exhibit third degree malnutrition. Other nutritional problems include anaemia and goitre. Cardiovascular diseases have emerged recently as a public health problem. Cancer is rapidly becoming a major cause of morbidity. Mental disorders affect at least one per cent of the population. The major health problems are also analysed. The Sixth Plan for Pakistan provides promise of an improved health status as there is emphasis on the control of diarrhoeal diseases, immunisation and assistance at childbirth by trained birth attendants as well as an extension programme calculated to combat communicable diseases.

Descriptors: *Causes of Morbidity; Health Policy; Pakistan*

Source: Planning and Development Division
Ministry of Health
Islamabad
Pakistan

125. Philippines. Ministry of Health. Disease Intelligence Center. *1978 Philippine health statistics.* Manila, 1982.

The 1978 Philippine Health Statistics contains data on notifiable diseases based on information gathered by field health personnel and submitted to provincial and city health officers. The officers then submit these data to the Disease Intelligence Center where such data are edited, classified, compiled, analysed, and interpreted.

The 1968-1978 period saw a continuous decline in the incidence of deaths from notifiable diseases, except all forms of tuberculosis, infectious encephalitis, malignant neoplasms, and influenza. During the same period, the incidence of typhoid and paratyphoid fever, gonococcal infections, and infectious hepatitis increased. The incidence of malaria, rabies, whooping cough, and tetanus decreased. Measles and influenza exhibited irregular trends on account of out-breaks at almost yearly intervals. Malignant neoplasms, on the other hand, consistently increase in incidence and mortality.

Data on age distribution of the cases of notifiable diseases show that the diseases were associated with particular age groups. Some were mostly confined to younger age groups. Among these were diphtheria, measles, whooping cough, varicella, poliomyelities, acute infectious encephalites, gastroenteritis, and H-fever. A few of them, such as tuberculosis, leprosy and malignant neoplasms, were confined to older age groups.

Notifiable diseases were almost evenly distributed throughout the country, with a few exceptions. For instance, schistosomiasis was highly endemic in Health Regions 8, 9, 10, 11 and 12. Filariasis was prevalent in Health Region 8, and malaria affected mostly hinterlands and newly opened settlement areas.

Descriptors: *Diseases, Philippines*

Source: Ministry of Health
San Lazaro Compound
Rizal Avenue
Manila
Philippines

126. Wijesooriya, Nihal, G. *Development of primary health care in Sri Lanka.* Colombo, Ministry of Health, 1983, p. 55-60.

Recent socio-economic, nutritional and health-related studies have brought out the problems of a hard core of poor, estimated at about 10-15 per cent of the population. This group of people benefits from the food stamps scheme (income support) but are outside the reach of most of the routine services and facilities including health. The levels of the health status, nutrition and health services coverage are worst amongst this group. With regard to nutrition there is a paradoxical situation; the high incidence of infant and childhood malnutrition, side by side with low and decreasing infant and child mortality rates. About 10 per cent of children six months to five years suffer from acute malnutrition. This brings out the need to add further dimensions to nutrition-associated programmes. Although malaria has been controlled to some extent there has been a resurgence in the seventies. With the translocation of people in the new agricultural schemes there is potential for a serious outbreak of malaria. Acute diarrhoeal diseases have continued to be an important group in relation to both morbidity and mortality. All the diseases in this group are water-borne and it is essential that potable water should be supplied to the population. There have been intermittant epidemics of El Tor and Cholera with a considerable number of deaths. The perspectives for the future, however, are bright with the ongoing supply and sanitation programmes. A diarrhoeal diseases control programme is also being implemented with support from foreign agencies. This publication gives a comprehensive report of the current health situation in the country.

Descriptors: *Health Conditions; Sri Lanka*

Source: Ministry of Health
Colombo
Sri Lanka

SECTION SEVEN: NUPTIALITY

Nuptiality

There are eight selections in this section. They include studies dealing with nuptiality which refers to the incidence, characteristics and dissolution of marriages in population. Marriage is considered as one of the important factors affecting population growth. Marriage is regarded as appropriate for the bearing and rearing of children. Thus, the demographic significance of marriage lies to a considerable extent on its being a primary determinant of the potential childbearing period, on its being one of the most significant factors responsible for changes in the fertility trend.

The selections here cover two basic issues about nuptiality: the vital statistics on marriage patterns and factors affecting nuptiality levels. Five selections which deal with the vital statistics on nuptiality includes a discussion on number and rate of marriage, mean age of marriage for male and female, availability of males and females at marriageable age, sex imbalance, incidence of widow and widower and divorce rate. Based on these data, marriage patterns have emerged. By and large, there is a discernible trend of rising age at marriage in Asia. Of the countries in South Asia, Sri Lanka does not follow the usual marriage patterns. Sri Lanka is characterized by a relatively late timing of marriage both for males and females and relatively high percentage of spinsterhood or celibacy. These publications also report that in other Asian countries, there is still relatively earlier marriage. One entry shows that in the Philippines, the marriage pattern is characterized by a rise in the proportion of singles, a decline in the proportion marrying in the younger ages and a decline in the proportion marrying during the late childbearing ages.

Three selections deal with the many factors that cause the variations in marriage patterns. These entries state that age at marriage was found to be influenced by the following factors: occupation, income, education, religion, place of residence, socio-economic factors, caste consideration and dowry in the case of South Asia. Variables which were observed to delay entry into marriage include education and women's work experience before marriage. Two selections confirm the finding that women in urban areas, with higher education and belonging to a household with higher socio-economic status prefer to postpone marriage. The husband's occupation and education also emerged as significant predictor of age at marriage of older women, one publication reports. Another entry also points out that women whose fathers were in clerical, professional and administrative occupations married later than other women.

Demography and its bearing on population education

Information about nuptiality can provide useful input into programmes of population education. For example, the finding on education as promoting delayed marriage can be useful to programme administrators as a basis for developing population education strategies which will further enhance the role of education in increasing the age at marriage. Education affects female marriage in several ways. To be able to continue higher level studies, women have to ramain unmarried. Further, education creates an attitude change and opens new avenues for the youth to spend their teen-age and early adult years in more productive ways. As a result, age at marriage is delayed. Population education should support the policies aimed at increasing the participation of women in education and economic endeavour as these have been found to delay entry into marriage. One strategy is to integrate population education in non-formal education programmes, particularly those on literacy and livelihood that are addressed to women. In the formal education sector, age at marriage as a topic in population education is usually taken up in home economics and social studies. In home economics, a lesson on this topic is aimed at showing how age and marriage affects the number of children a couple might have and to identify the advantages or disadvantages of early or late marriage. In social studies, this topic is approached through developing an understanding of the norms and practices with regard to marriage.

127. Bhat, M. and R. Kanbarji. "Estimating the incidence of widow and widower remarriages in India from census data," *Population Studies* 38(1): 89-103, March 1984.

In this paper a method is evolved for estimating the incidence of widow and widower remarriages from the current marital status data given in a census or survey. The method is based on reversal of the procedure of estimating adult mortality from information on widowhood status. The method is applied to the all-India data from the census of 1971. The conclusion is that about one-third of the ever-widowed women and slightly less than two-thirds of the ever-widowered men were currently re-married in 1971. The effects of widowhood and subsequent remarriage on the fertility of Indian women has also been measured presented in a table. Finally it was concluded that in 18 per cent of all surviving marriages in 1971, one of the partners had previously been widowed, and in about 12 per cent of all marriages and 10 per cent of first marriages, the successful suitor was a widower.

Descriptors: *Widow Remarriage; India*

Source: London School of Economics
Houghton Street
London WC2A 2AE
England

128. De Guzman, Eliseo A. "Trends and differentials in nuptiality," in: Concepcion, Mercedes B. ed. *Population of the Philippines: current perspectives and future prospects.* Manila, National Economic and Development Authority, 1983, p. 145-167.

This paper discusses changes in marriage pattern in the Philippines at various levels of aggregation. National differentials in marriage are examined to delineate divergencies across various population sub-groups, as influenced by social and economic change brought about by urbanization, the expansion of education, and changes and diversities.

Data came from the 1948, 1960, 1970 and 1975 censuses and from the 1978 Republic of the Philipiines Area Fertility Survey.

Some of the major findings are:

1. An increase in proportion of never-marrieds and a trend of rising age at marriage for the Philippines as a whole and its geographical subdivisions were seen during the 1948-1980 period. With a slight decline in 1975, the proportion of never-marrieds among women aged 15-19 reached a high level of 89.2 per cent in 1970 from its level of 85.1 per cent in 1948. Among women aged 20-24, the rise in the proportion of never-marrieds reached a high level of 51.2 per cent in 1975 from 40.7 in 1948. Among males, the proportion of never-marrieds increased slightly, although for those

aged 20-24, the proportion increased by a little over 14 per cent. The singulate mean age at marriage for females was recorded at 22.1 in 1948 and 23.2 in 1975. For males, it was at 24.9 in 1948 and 25 in 1975. The author notes that the delay in age at mariage curtails the amount of time spent by the average Filipina in her reproductive life.

2. There were variations in marriage patterns among different population sub-groups. However, no significant ethnolinguistic and religious differentials in age at marriage were drawn. Differences in age at marriage by urban-rural residence widened. There were also marked differences among educational sub-groups.

3. Pronounced differentials in the age at marriage by socio-economic variables also dominated within regions. These variables were also noticed in the national level analysis. The author notes that the variables did not quite explain the observed intra-regional variations in age at first marriage. He recommends further studies on the bearing of cultural, physical, and psychological factors on nuptiality.

Descriptors: *Marriage Differential; Age at Marriage; Philippines*

Source:
Population/Development and Planning Research Project
National Economic and Development Authority
Amber Raod, Pasig
Metro Manila
Philippines

129. Domingo, Lita J. *Correlates of nuptiality: Central Luzon and Metro Manila, AFS, 1980.* Manila, Population Institute, University of the Philippines, 1983. 18 p. (Area Fertility Survey special report no. 50)

The delaying effect of socio-economic characteristics on the timing of age at marriage of women is confirmed again in an analysis of correlates of nuptiality among women in Central Luzon and Metro Manila.

Drawing on data from the 1980 Area Fertility Survey conducted in the two regions, this report looks into selected characteristics of both wives and husbands which may explain the timing of marriage among women. Variables considered for analysis include women's education, husband's education, woman's work before marriage, woman's occupation, husband's occupation and residence. The method of analysis used was Multiple Classification Analysis.

Here are the findings:

1. The mean ages at marriage (in years) among respondents are as follows: in Central Luzon, 20.40 among women aged 25-44 and 22.36 among women aged 45-54.

2. Among the younger cohorts (women aged 25-44), it appears that a woman's own characteristics, notably, her economic activity and education, were found to delay entry into marriage. In Central Luzon, for example, young women who are in non-agricultural occupations deviated by .82 years from the grand mean of 20.40; the same holds true for women who have had a higher level of education. In Metro Manila, those who worked before marriage at age 22.32, a deviation of .80 years from the grand mean of 21.52.

3. Among the older cohorts (women aged 45-54) the husband's characteristics seem to explain the timing of marriage. The husband's occupation and education emerged as significant predictors of age at marriage of older women.

According to the author, the differences in the predictors between the younger and the older women could be due to differences in composition, level of achievement and aspirations, orientation or socialization between these cohorts. If the experience of the younger cohorts reflects current trends, the author recommends the support of policies aimed at increasing the participation of women in educational attainment and economic endeavours as these have been found to delay entry into marriage.

Descriptors: *Age at Marriage; Socio-economic Factors; Comparative Analysis; Philippines*

Source: Population Institute
University of the Philippines
Padre Faura, Manila
Philippines

130. Gamage, Eric. "The marriage pattern of Sri Lanka," *Economic Review* 8(9): 24-26, December 1982.

The marriage pattern in Sri Lanka is characterised by a relatively late timing of marriage both for males and females and a relatively high percentage of spinsterhood or celibacy. The proportion getting married has declined among the younger age groups. The employment, education and income, consideration of caste, ethnicity and religion and dowry seem the major influences in the observed delay in the timing of marriages. "The socio-economic and cultural conditions prevailing in the context of Sri Lanka's relative economic under-development contributes towards the creation of certain attitudinal and behavioural consequences as may be seen in the case of marriage in Sri Lanka, since the level of marriage dissolution prevalent here is low". These comments are made by the author, a lecturer in the Department of Sociology, University of Peradeniya, on the changing marriage patterns in Sri Lanka. This pattern is perceived as different from the patterns of most developing Asian countries.

Descriptors:	*Marriages; Socio-economic Factors; Culture; Sri Lanka*
Source:	The People's Bank, Research Department Sir Chittampalam A Gardiner Mawatha Colombo 2 Sri Lanka

131. Gonzales, Myrna C. *The impact of changes in marriage patterns on fertility in the Philippines.* Manila, National Census and Statistics Office, 1978. 28 p. (NCSO monograph no. 13)

This study was done to determine the impact of changing marriage patterns on fertility in the Philippines during the period 1903-1970. The basic data used are the 1903, 1939, 1948, 1960 and 1970 statistics on female population classified by marital status and by five-year age group. Hajnal's and Leasure's methodology was adopted to compute the singulate mean age at marriage, age-specific fertility rate, total fertility rate, and gross reproduction rate for the 1903-1970 period.

The first part discusses the trend in marriage patterns in terms of the changes in the proportion of single women, the porportion of women marrying in the younger ages and in the late childbearing ages, marriage rates, and singulate mean age at marriage. The second part discusses the impact of changing marriage patterns on fertility.

Analysis of data showed that the Philippine's marriage pattern is characterized by a rise in the proportion single, a decline in the proportion marrying in the younger ages, and a decline in the proportion marrying during the late childbearing ages. The estimated singulate mean ages at marriage are 21.1, 21.8, 22.2, 22.3 and 22.8 years for the 1903, 1939, 1948, 1960, and 1970 censuses, respectively. Findings also suggested that during 1903-1970, fertility in the Philippines tended to be high although it was already experiencing a gradual decline since the early part of the 20th century. The estimated total fertility rates are 6.52, 6.46, 6.30, 6.22 and 6.08 for the 1903, 1939, 1948, 1960, and 1970 censuses, respectively. The gross reproduction rates are 3.16, 3.13, 3.05, 3.01 and 2.94 during 1903-1970.

The gradual decline in fertility cannot be attributed to changes in marriage patterns.

The study says that the decline in fertility can be due to other factors such as increase in the number of women workers, pursuit for higher education and knowledge, use of contraceptives, and improved health conditions.

Descriptors: *Marriages; Fertility Analysis; Philippines*

Source: National Census and Statistics Office
Ramon Magsaysay Blvd., Sta. Mesa
Manila
Philippines

132. Karim, Mehtab S. *Socio-economic and cultural aspects of marriage and fertility in urban Pakistan.* Honolulu, East-West Population Institute, 1979. 26 p. (EWPI paper no. 64)

This paper examines the relationship between age and marriage and fertility in a sample of 1,114 currently-married woman 15-44 years of age who were living in urban areas at the time of the survey. Cumulative fertility differentials were found among socio-economic and ethnic groups and residential groups who married at younger and older ages. Duration of marriage and first pregnancy interval proved to be important predictions of the increased relationships between age and marriage and cumulative fertility. Raising the mean age at marriage for Pakistan women from 16 to 19 would have beneficial social as well as demographic effects. However, increasing the legal age at marriage must be accompanied by a fundamental change in women 's roles. At present girls are not expected to be economically productive, therefore parents desire them to marry early.

Descriptors: *Age at Marriage; Differential Fertility; Pakistan*

Source: East-West Population Institute
East-West Centre
Honolulu, Hawaii 96842
U.S.A.

133. Qadir, S.A. *Development of human resources, population policies and manpower and employment policies in Bangladesh.* Dhaka, Bangladesh Institute of Development Studies, 1984. 8 p.

In recent times there has been a shift in the age at marriage from about 14 to 16 years with corresponding changes in the proportion of married women in the two age groups.

There is also increased subfecundity of younger wives possibly associated with poor nutritional status. One of the factors associated with the increased age at marriage may be the deteriorating nutritional status of children and young women in particular, as a consequence of which the age at marriage may be increasing. The age specific marital fertility rates in Bangladesh reveal that child-bearing is delayed after marriage because of the adolescent subfecundity of the very young brides. By the time a women is in her late thirties she is likely to have a marriageable daughter and may even be a grandmother. Socially, she is not expected to bear children when her daughter or daughter-in-law may be expected to do so. There is universality of marriage in Bangladesh. The difference in the ages of husband and wife in Bangaldesh in 1974 has been on the average of 8.4 years, the bridegroom being 24.9 years and the bride 16.5 years. A girl under 10 years of age was sometimes married to a man 10 or more years older. Marriage dissolution may be broadly categorized as (1) widowhood, (2) divorce and separation. The proportion in Bangladesh remaining widowed or divorced is relatively low for males because of remarriage. In general there appeared to be a decline in widowhood and an increase in divorce.

Descriptors: *Age at Marriage; Marriage Dissolution; Culture; Bangladesh*

Source:
Human Resource Division
Bangladesh Institute of Development Studies
Dhaka
Bangladesh

134. Smith, Peter C. "Changing patterns of nuptiality," in: Flieger, Wilhelm and Peter C. Smith, ed. *A demographic path to modernity: patterns of early-transition in the Philippines.* Quezon City, University of the Philippines Press, 1975, p. 41-81.

The factors underlying changing patterns of nuptiality in the Philippines and the implications of such changes for the future are examined in this paper. The national nuptiality pattern is explored by considering variations in nuptiality across sociocultural groups and areal units. For this purpose, census data for the 1903-1960 period was used to determine nuptiality patterns at the provincial level. Data from the 1968 National Demographic Survey was also analysed to determine nuptiality differentials.

The data show that in 1903, indigenous Malays, who constituted the bulk of the colonial population, had a mean age at marriage of just over 20 for females and almost 25 for males. The meztizo or mixed group married somewhat later, with urban meztizas marrying 1.5 years earlier than their rural counterparts. Early marriage for male urban meztizos, however, was prevalent during that period. The mean ages at marriage for urban meztizo and rural meztizo were 26.5 and 27.0, respectively. Data on Negrito groups suggest early marriage for females.

At the provincial level, data show a steady trend in the mean age at marriage over the 1903-1960 period. Interprovincial differences, however, were exhibited in the timing of marriage, which became more pronounced before 1939 but diminished in the postwar period. Over the 1903-1939 period, 25 provinces experienced rising ages at marriage while the remaining 20 experienced declines. In the postwar period, nearly all provinces experienced delayed marriage. Of the 20 provinces that showed a shift to earlier marriage during the pre-war period, many experienced either in-migration of males or out-migration of females. The 20 provinces included most Mindanao, all of the Bicol area, Samar and Leyte, a number of island provinces in the Visayas. During the postwar period, the only provinces that ran contrary to the national trend of delayed marriage were the provinces of Ilocos Norte, Ilocos Sur and La Union.

The study noted that there were socio-economic factors which accounted for differentials in age at marriage. For instance, women whose fathers were in clerical, professional, and administrative occupations married later than other women. Also women with fathers who were college graduates married about three years later than other women. With respect to literacy, women who could read and write married more than one year later than those who were illiterate. Religious differentials, however, did not appear to be very significant.

Two implications for policy are present. First the possibility of adopting policies designed to delay age at marriage is raised. Programmes directed toward generating female wage and salary employment seems to be an attractive prospect. Second, the impact of the national family planning programme which aims to reduce fertility cannot be assessed adequately until nuptiality effects on overall fertility are determined.

Descriptors: *Age at Marriage; Marriages; Socio-economic Factors; Philippines*

Source: University of the Philippine Press
Diliman, Quezon City
Philippines

SECTION EIGHT: MIGRATION

Migration

This section consists of 19 entries analysed according to four major sub-topics, e.g., demographic perspective of migration, overseas labour migration, patterns of migration and migration and employment.

Under the sub-topic, demographic perspective, seven entries discuss the volume of migrants, reasons for migrating, patterns or direction of migration and impact of migration inside a country. These entries refer to volume as the number of migrants arriving in a certain place at a certain period. All of the abstracts characterize migrants in terms of age, sex, civil status, occupation, educational attainment and motivations, attitudes and patterns of behaviour. With regard to patterns of migration, several types have been identified: rural to urban, urban to rural, rural to rural and urban to urban. Other classifications are also discussed, such as seasonal migration, return migration, intra-regional or inter-regional migration. With regard to reasons for migrating, the abstracts brought out the following: (a) for employment and other economic reasons; (b) for recreational facilities and modern conveniences; (c) marriage; (d) education; (e) chain migration and (f) new colonization schemes or new settlement schemes. According to these studies, the impact of migration can either be positive or negative both in the place of origin and in the place of destination. A number of abstracts identified these as: (a) benefits derived from land ownership and a better livelihood; (b) in the place of destination, it has created a sluggish economy and weakened the capacity to absorb large numbers of educated youth joining the work force; (c) increase of population in the place of destination and decrease of population in the place of origin; (d) more economic success among migrants to smaller urban centres than the large metropolitan centres, etc. The abstracts also point out that migration both within countries and to foreign countries has been a significant feature in the countries of Asia. Whereas there is similarity in the reason for emigrating to foreign countries (mainly for economic reasons), the reasons affecting internal migration are divergent. For example, a selection reports that in Nepal, the strain of life in the Himalayan mountain slopes influences people to migrate to the plains. In Sri Lanka, migration is influenced by the location of the development schemes.

The six entries on overseas labour migration cover such issues as profile of the migrant workers, volume of immigrants abroad, reasons for migrating abroad, impact of labour migration on countries of origin, prospects and problems of overseas workers and policies on manpower export industry. According to a number of studies, the benefits of overseas migration result primarily from the dollar remittances of the migrant workers to their families. This money has raised the standards of living of the recipients, using the money for land purchases, house renovation, investment, children education and purchase of durable goods. On the larger level, three selections report that overseas labour migration has had beneficial impact on the unemployment situation of the countries of origin and has broken down socio-economic barriers. On the debit side, important public services had been affected as a result of the loss of skilled manpower. A number of studies also look into the problems being encountered by overseas workers, classifying them according to those connected before leaving the country of origin and during employment abroad.

Four abstracts describe the patterns of migration. In South Asia according to one study, the distribution of population is conditioned by the terrain of the countries. In Southeast Asia, population movement ranges from the seasonal short-term moves by rural people seeking supplemental income to permanent migration variation from country to country depending on the alternatives available. In the Philippines, one abstract points out that migration occurs from less developed areas to more developed areas and/or from the more developed areas to other developed areas.

Finally, three abstracts show the effects of migration on two variables, employment and fertility. These entries describe the effects of migration on employment and vice-versa. The abstracts show that the reason why people move to a certain place is mainly because of the employment potential. They point out that most of the migrants were unemployed in their place of origin and found jobs after migration. On the other hand, one abstract portrayed how rural job creation programmes have affected migration. It concludes that the development of growth centres and rural job creation programmes did not stop people from migrating to urban areas. It also states that the rural job creation programme is positively related with out-migration. It is only able to impede temporary migration among middle class short-term migrants.

Migration is part and parcel of population education contents and can be naturally taken up in many subject areas such as social studies, geography, home economics, mathematics, health, civics, etc. In geography, migration can be introduced into the unit on interdependence and spatial interaction. This lesson shows that one village or villages are dependent on others for goods and services and that a country depends for some of its needs on distant areas. Because the links that tie a country or village into "one world" is a very small part of a complex of network of flows and linkages, interdependence strengthens and migration occurs. In social studies, the entry point will be a unit on population change of which migration is one of the important components of population change. A unit on this topic will include discussion on types of patterns of migration, causes or reasons for migration, effects of migration. In health education, the problem that migration poses on the health of population in shown. It is shown that many migrants who go to urban areas often lack skills useful to urban areas and thus are unable to earn an income sufficient to ensure either satisfactory living conditions or adequate diet. As a result, migrants remain malnourished and more susceptible to a range of infectious diseases. In some cases, the opposite happens. This migration may improve instead the health status of the migrants because of the availability of health services in the urban area. However, the increase in urban population due to migration also increases the need for health services and which makes existing and available health resources insufficient to meet the demands of the growing population. In mathematics, simple principle of addition and subtraction can be applied also on migration by showing that when a certain number of people from one place migrate to another place, we add that number to the population of the place of destination. We subtract the same number from the population of the place they had left.

135. **Abeysekera, Dayalal Senerath.** *Determinants and consequences of internal migration; the rural wet zone to rural dry zone stream in Sri Lanka.* Ph.D. dissertation, Brown University, U.S.A., November 1979.

This study basically addresses itself to three questions, viz: (1) who migrated to the Dry Zone?; (2) why did they migrate?; (3) what streams of migrants to the Dry Zone have been sustained and maintained over the past three inter-censal periods? ESCAP identifies three types of people who migrated from the Wet Zone to the Dry Zone: (1) people who were running away from some blot on their name; (2) people who had been reduced to landlessness; and (3) people who were attempting to improve an adverse caste situation. However, the results of this analysis do not bear out the last contention. Throughout the analysis, the basic theme that has emerged is that if the first generation of migrants and their native peers were considered, the migrants benefited to a great extent by migration, mainly in terms of land and its potential for a better livelihood. The native of the Wet Zone were also capable of conserving their communities and moderately improving themselves, given the very drastic limitations in terms of advancement via land or extra-agricultural employment opportunities.

Descriptors: *Internal Migration; Intercensal Migration; Sri Lanka*

Source: University Microfilms International
P.O. Box 1346
Ann Arbor, Michigan 48106
U.S.A.

136. Abeysekera, Dayalal Senerath. *Regional patterns of intercensal and lifetime migration in Sri Lanka.* Honolulu, East-West Population Institute, 1981. 46 p. (EWPI paper no. 75)

This paper, according to the author, draws on published census data to examine regional patterns of intercensal migration in Sri Lanka between 1946 and 1971 and on a 10 per cent sample for the 1971 census which examines patterns of life-time migration. Two important migration streams are observed - one into the metropolis of Colombo and the other to rural areas. The latter is a result of the Government investment in peasant agriculture with colonization schemes. Over half of the life-time migrants have moved into rural locations outside the Dry Zone. The pattern of migration must be placed within the context of the history and the political economy of the country. The study of past patterns of migration is invaluable for the policy values if they are to have some control over the long-term effect of the phenomenon which has arisen as a result of the implementation of national policy.

Descriptors: *Intercensal Migration; Internal Migration; Sri Lanka*

Source: East-West Population Institute
1777, East-West Center
Honolulu, Hawaii 96848
U.S.A.

137. Apichat Chamratrithirong, and others. *Recent migrants in Bangkok Metropolis: a follow-up study of migrants' adjustment assimilation and integration.* Bangkok, Institute for Population and Social Research, 1979. 176 p.

In this study the 498 migrants aged 15-44 identified in the 1977 Migration Survey in Bangkok Metropolis were interviewed, followed up by mail questionnaires, and reinterviewed after six months. The 300 non-migrants were also interviewed and followed up by mail questionnaires for comparison. Recent migrants to Bangkok were found to be young and predominantly single, 80 per cent of men and 68 per cent of women moved for purposes of employment, and about 26 per cent of women moved for family reasons. Men moved to find work as skilled and semi-skilled workers and women to work as servants or in the service sector. Nearly half had previously visited Bangkok, and about 57 per cent planned to stay only temporarily. The majority had jobs waiting for them, especially among women, and most found work within one month. About 40 per cent considered their current jobs unstable. After 6 months, nearly half the migrants remained at the same address, 12 per cent had moved within the city, and 22 per cent of men and 31 per cent of women had returned to their original place of residences. Return migration was greatest for women aged 15-24 and for men aged 20-24. Seasonal migration was significant among lower status agricultural workers. The majority of migrants reported improved living situations in the city, especially with regard to income and jobs. Women were found to assimilate to the urban environment at a slower pace than men. Migrants were found to be substantially segregated from non-migrants in several respects.

Descriptors: *Migrants; Rural-Urban Migration; Seasonal Migration; Thailand*

Source: Institute for Population and Social Research
Mahidol University
25/25 Puthamolthon 4
Salaya 73170, Nakhonpathom
Thailand

138. Bernardo, Thelma S. "Historical analysis of inter-regional migration in the Philippines," *CLSU Scientific Journal* 3(2): 68-97, November 1982-April 1983.

This study examines the patterns of inter-regional migration in the Philippines from 1970 to 1975. To analyse the changes in population distribution over time, the author considered earlier patterns of population movement, specifically the 1938-1970 period.

Following are the major findings:

1. Majority of the regions during the 1939-1975 period did not change status as in-migration and out-migration areas. The general pattern of movement was toward the large cities, particularly the greater metropolitan area, or the frontier areas of Mindanao.

2. Estimates using the residence method showed that five out of 12 regions in the Philippines were in-migration areas during the 1970-1975 period. Metro Manila, Northern Mindanao, Central Luzon, Southern Tagalog, and Southern Mindanao (ranked according to net-migration rates) were the regions that gained population through migration.

3. Almost one-third of all regional in-migrants (263,058 or 30 per cent) migrated to the metropolitan region. Eight per cent of this figure moved to Manila. More than 23 per cent (196,088) transferred to Manila's neighbouring regions: Central Luzon (99,210 or 11 per cent) and Southern Tagalog (94,113 or 11 per cent). The three Mindanao regions (northern, southern and western) had a share of over 23 per cent (206,619) of the total migrants.

4. Western Mindanao, Cagayan Valley and Ilocos Region received the least number of migrants.

5. Of the 35 million total population in 1975 aged five years and over, about one in 40 were migrants who moved across regional boundaries. There was a slight predominance of females over males (52 per cent as against 48 per cent).

6. In general, more than 80 per cent of the migrants for all regions were in age groups 5-14, 15-24, 25-34 and 35-44. The greatest concentration of migrants, however, was found in the age group 15-24 for both sexes in all regions.

7. For all regions, the proportion of migrants for both sexes decreases as age increases. This conforms to the empirically proven hypothesis that age selectivity of migrants is greater for the younger age group.

Descriptors: *Internal Migration; Migration Statistics; Rural-Urban Migration; Philippines*

Source: Central Luzon State University Scientific Journal
Central Luzon State University
Munoz, Nueva Ecija
Philippines

139. Cariño, Benjamin V. and Ledivina V. Carino. *Principal reasons for migration: a tool for decision making (a summary).* Paper prepared for the Seminar/Workshop on Migration, Nutrition Center of the Philippines, November 19, 1976.

This study investigates the reasons for, and the factors related to migration behaviour. The study was carried out in two phases. The first phase was designed to: (1) determine the volume and direction of migration streams to and from the Bicol region; (2) identify the main migration patterns (e.g., intra-regional, interregional); and (3) describe the types of persons contributing to the migration streams in terms of socio-demographic characteristics (e.g., age, sex, civil status, educational attainment). The second phase was intended to uncover the interrelated factors and phenomena that may explain migration behaviour.

Significant findings are:

1. The Bicol region is an out-migration area. A greater number of the out-migrants belonged to the age group 10-29. They also had higher educational qualifications compared to in-migrants and stayers in the region.

2. The following factors, according to order of importance, were cited as reasons for migration: (1) employment; (2) marriage; (3) education; and (4) chain migration. On the whole, however, a migrant's motivations for moving are usually linked with his relationships with the family and the community. Certain structural factors, community norms and family expectations influence the decision to move.

3. The impact of out-migration on Bicol's prospect for development may indeed be very serious. Following are the adverse consequences for the region: (a) degradation of the age structure of the region's population; (b) deterioration of the skill structure of the region. A related consequence would be the slowing down of the region's economic growth and development.

At the individual level, the study examined the effects of geographic mobility on one's sons, whether migration enhances one's socio-economic status. It was found that: (a) Geographic mobility of fathers leads to geographic mobility of children; (b) Social mobility of parents is related to children's propensity to migrate; (c) Geographic mobility, however, does not generally lead to social mobility.

Descriptors: *Internal Migration; Intraregional Migration; Socio-economic Factors; Philippines*

140. Chulasai Luechai, and others. "Migration and rural job creation programme: a study of northern Thailand," in: Suchart Prasith-rathsint, ed. *Population and development interactions in Thailand.* Bangkok, Pappin Press, 1983. 27 p.

The study tried to investigate the impact of rural job creation programme on migration in northern Thailand. To reduce the widening gap among various income groups and among different regions of the country (caused by the past development strategy which emphasized economic efficiency and production at the expense of equitable distribution of growth benefits) the government expresses its intention in the Fifth Plan to create a more balanced growth of the rural and urban areas. To increase rural cash income and motivate rural people to stay on in the rural areas during the agricultural slack season, the government started a rural job creation programme to create labour intensive jobs in the rural areas. One of the main objectives of the study is to investigate the demographic and economic impact of the 1981 rural job creation programme (RJCP). Demographic and economic impact includes migration, employment, consumption, production and income.

From the 17 provinces in the north, three provinces were sampled using sampling proportional to the size of the RJCP budget. Three sub-districts were then sampled from three provinces and then 900 households were sampled, consisting of 751 households with RJCP workers and 149 households of non-RJCP workers. The important conclusion drawn from the study are: (a) the 1981 RJCP recruited a higher proportion of the economically less well-off than the 1981 RJCP but those better off still budget more than the programme; and (b) the 1981 RJCP could provide short-term employment and some extra cash income, but it could not discourage seasonal migration.

Descriptors: *Rural Job Creation Programme; Internal Migration; Socio-economic Factors; Thailand*

Source: Prof. Dr. Suchart Prasith-rathsint
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

141. Economic and Social Commission for Asia and the Pacific. *Migration, urbanization and development in Sri Lanka.* Bangkok, 1980. 143 p. (Comparative study on migration, urbanization and development in the ESCAP region).

The objective of the study is to describe population redistribution of Sri Lanka. The introduction gives a short summary of the physical environment, the economy, ethnic groups and the demographic background of the Island. The book goes on to describe distribution and redistribution of population, urbanization trends, components and characteristics, patterns of migration, national development policies and programmes, and state of development in the rural and urban sectors. Annexes include selected tables from the special tabulations produced from the 1971, distribution of population by districts, region and sector for selected years. The books ends on a warning note that the desirable aspects of Sri Lanka's population distribution could be adversely affected by the social and economic changes in the country.

Descriptors:	*Population Distribution; Urbanization; Sri Lanka*
Source:	Clearinghouse and Information Section ESCAP Population Division Rajdamnern Avenue Bangkok 10200 Thailand

142. Elahi, K. Maudood, and others, ed. *Development and population redistribution in South Asia; a symposium.* n.p., 1980. 50 p.

The symposium leading to the publication of this brochure was the third in the series of regional symposia organized by the I.G.U. Commission on Population Geography, devoted to the subject of population redistribution. Trends and policies in relation to development were discussed with the focus on five countries - Bangladesh, India, Nepal, Pakistan and Sri Lanka. In Sri Lanka, the pattern of population redistribution has changed since independence. The main agents of change result from high rates of natural increase in the Dry Zone and internal migration to urban Colombo and Dry Zone colonization districts. Another paper describes successive phases of Pakistan's population programme, its major components and achievements, the population policy and how far the policy has been successful. The paper "Regional Development Policy and Redistribution of Tribal Population in India" focuses attention on the general process and the social consequences of population redistribution witnessed in some of the major tribal regions of India in the wake of development after Independence. "Population Redistribution and Development in Bangladesh" identifies the chief factors that have contributed to the structural variation of population by districts. "Trends of Redistribution of Population in Nepal" gives the peculiar feature of population distribution in Nepal. The distribution of population here is conditioned by terrain. However, major shifts of population are taking place and proper efforts should be made for the right allocation of lands for different uses.

Descriptors: *Population Distribution; Internal Migration; South Asia*

Source:
Commission on Geography and International Geographical Union
U.S.A.

143. Fuller, Theodore D. "Migrant-native socio-economic differentials in Thailand," *Demography* 18(1): 55-66, February 1981.

This research has suggested that the position of many urban migrants compares favourably with that of urban natives. Understanding the process of migration and the structure of urban areas contributes to an understanding of why, as is apparently the case, upcountry migrants are more successful than are migrants in Bangkok. This study is refined by referring to three key distinctions: migrants from rural versus urban origins, recent versus more experienced cityward migrants, and type of urban destination. In the early 1970s, migrants to smaller urban centre, especially the more experienced migrants, are economically more successful than migrants to the large metropolitan centres and in some cases are more successful than urban natives.

Descriptors: *Internal Migration; Migrants; Thailand*

Source:
Population Association of America
P.O. Box 14182
Benjamin Franklin Station
Washington, D.C. 20044
U.S.A.

144. Goldstein, S. and A. Goldstein. *Differentials in repeat and return migration in Thailand, 1965-1970.* Bangkok, Institute of Population Studies, Chulalongkorn University, 1980. 49 p.

The data for this study come from a two-per cent sample taken from the 1970 Census. The population were divided into five migration status categories to calculate the percentage of the population in each category. For the total population 81.9 per cent of the males and 84.6 per cent of the females were categorized as non-migrants as their reported place of birth, 1965 place of residence and 1970 place of residence were identical. It was found that 11.6 per cent of the males and 10.2 per cent of the females were classed as settled migrants; 4.6 per cent of the males and 3.6 per cent of the females were classed as primary migrants; 0.5 per cent of the males and 0.6 per cent of the females were categorized as return migrants, and 1.3 per cent of the males and 1.0 per cent of the females were classed as repeat migrants. The vast majority of the population was non-migrants. Migration patterns were analysed by urban and rural place of residence and by age, sex, and socio-economic status. Almost half of the Bangkok population and more than one-fourth of the population of other urban areas were migrants. In the rural areas only about 12-14 per cent of the population was composed of migrants. In the urban areas most of the primary had rural origins while the repeat and return migrants tended to have urban origins. The population of migrants in rural areas who were return and repeat migrants was higher than in urban areas. There were considerable age and occupational differences between migrants and non-migrants. Education was positively related to migration. Repeat migrants in small urban centres had a disproportionally high number of government workers and individuals with high education.

Descriptors: *Return Migration; Socio-economic Factors; Migration Statistics; Thailand*

Source:
Institute of Population Studies
Chulalongkorn University
Phya Thai Road
Bangkok 10500
Thailand

144. Herrin, Alejandro and Luisa Engracia. *Trends in female migration to cities and the changing structure of female employment in the Philippines.* A paper presented at the Conference on Women in the Urban and Industrial Workforce, Southeast and East Asia, Manila, 15-19 November 1982.

Until the 1960's, migration in the Philippines used to be frontierward and male-dominated. But in recent years, the trend has shifted, becoming mainly urbanward (principally to Metro Manila) and increasingly dominated by females. In the most recent five-year period, 1975-1980, 60 per cent of female migrants and 54 per cent of male migrants trooped to urban centres.

These trends were gleaned from an analysis of data from the 1970, 1975 and 1980 censuses.

Following are some of the major findings:

1. Female migrants tend to be single and much younger than either their non-migrant or male migrant counterparts. Educationwise, female migrants have about the same education as non-migrant females; when compared with male migrants, however, the latter have higher educational attainment.

2. More female migrants to the cities are engaged in gainful occupations compared to non-migrant females (48 and 36 per cent, respectively). However, female migrants tend to be concentrated in service and sports occupations. About 90 per cent of those in the said category work as "housekeepers, cooks and maids".

3. Single female migrants have higher labour force participation than their non-migrant counterparts, reflecting the former's willingness to take on any available job. The labour force participation of married migrant women is about the same as that of non-migrant women. In general, single women, regardless of migration status, have higher labour force participation.

4. Among educated females, non-migrants appear to have a greater competitive edge over female migrants in obtaining white-collar and prestige occupations. Among female migrants, women with elementary schooling had the highest labour force participation (52 per cent) while among female non-migrants, women with at least some college education rated highest in labour force participation (52 per cent). The higher participation rate of less educated female migrants is due mainly to the former's concentration in service and sports occupations.

5. In general, male migrants tend to be superior to male non-migrants in almost all major occupations, and far much better occupationally than female migrants. Male migrants tend to hold high-paying prestige jobs rather than the service type occupations that female migrants usually get.

The occupational differentiation of male and female migrants (which is even greater than between female migrants and female non-migrants) may be traced to the former's higher educational attainment. Some factors, however, can possibly come into play, e.g., sexual discrimination in the hiring process, etc., and this is one area which needs more study.

Descriptors: *Female Migrants; Female Employment; Philippines*

Source: Dr. Alejandro Herrin
School of Economics
University of the Philippines
Diliman, Quezon City
Philippines

146. Khan, Akhtar Hasan and Mehtab S. Karim. "Migration patterns in Pakistan during the 1970s evidence from the 1981 data," *Pakistan Administration* 20(2): 45-66, July-December 1983.

This paper was prepared for the conference on "Recent Population Trends in South Asia", New Delhi. The authors find that on the basis of the limited data available from the 1981 census there has been internal migration and emigration to a considerable extent. The three large cities, Quetta, Peshwar and Karachi had the major share of net migration. The typical migrant was a male in his late twenties, who had worked in agriculture and had three to five years of education. About two-thirds of all male migrants were married and in most cases were accompanied by their families. Emigration from Pakistan has been primarily of workers. This began on a modest scale in the late 1950s and the United Kingdom was a popular destination. In the 1970s, Pakistani workers started emigrating to the Middle East. Currently over thousand workers are leaving the country annually (1982). Eight tables give statistics regarding the policies of migrants and emigrants, age and sex distribution, age specific distribution, current residence and period of migration.

Descriptors: *Internal Migration; Emigration; Labour Migration; Pakistan*

Source:
Pakistan Administrative Staff College
Lahore
Pakistan

147. Korale, R.B.M.C. and I.M. Karunaratne. *Migration of Sri Lankans for employment abroad.* Colombo, Employment and Manpower Planning Division, Ministry of Plan Implementation, 1981. 52 p.

This study was undertaken to obtain information specifically for the limited purpose of assessing and evaluating the effects of migration on employment and for manpower planning purposes. There are a number of tables which communicate the findings of the survey. Table 10 shows skilled workers and month of migration (1979). Table 7 shows high-level manpower categories, table 8 middle-level manpower and table 5 unskilled workers by occupation. The migration component has become in some occupations as large as the total internal demand. It was felt that migration of Sri Lankans to countries abroad should be carefully monitored. The need for reliable and high quality information and data on migration has been highlighted. It is believed by the authors that the information in the report will be particularly useful to young persons seeking a choice of career and to research writers.

Descriptors: *Migration Statistics; Emigration; Labour Migration; Sri Lanka*

Source:
Employment and Manpower Planning Division
Ministry of Plan Implementation
Colombo
Sri Lanka

148. Laddawan Rodmanee and Sarunya Bunnag. "Rural job creation programme and migration in southern Thailand," in: Suchart Prasithrathsint, ed. *Population and development interactions in Thailand.* Bangkok, Pappim Press, 1983. 30 p.

This research study looks into the rural job creation programme and migration in Southern Thailand. They conceptualize that the rural job creation programme directly affects changes in social, economic and demographic conditions of the people who live in the programme areas. It increases income, employment and participation in community activities. These changes are, in turn, expected to affect migration. The sample includes five Southern provinces listed as poor by the National Economic and Social Development Board. Altogether 818 household heads were interviewed. Based on multiple classification analysis, they similarly conclude that even though the RJCP succeeds in building elementary infrastructure in the villages and providing income and jobs to some of the villagers, it cannot stop the flows of migration to urban places. Likewise, it cannot attract the rural people who migrated to other places to return to the village of origin. In fact participation in the rural job creation programme has been found to be positively related with out-migration. Among the recommendations are: (a) to be more meaningful, the jobs to be created by the programme should be able to use labour it employs throughout the dry season; and thus (b) a larger amount of funds should be allocated to the villages for these purposes.

Descriptors: *Rural Job Creation Programme; Internal Migration; Socio-economic Factors; Thailand*

Source: Prof. Dr. Suchart Prasith-rathsint
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

149. Paganoni, Anthony, compiler. *Migration from the Philippines.* Quezon City, Scalabrinians, 1984.

This volume compiles nine papers on the following topics related to international migration: (1) an economic analysis of the Philippines manpower export industry; (2) the functions and activities of the Commission on Filipinos Overseas in the Philippines Overseas Employment Administration; and (3) the prospects and problems of Filipino overseas workers.

An Economic Analysis of the Philippine Manpower Export Industry by Borra first gives a historical background on the growth of the industry from the early

1970s to the present. It proceeds to discuss the economic and labour conditions which served to push Filipinos to work abroad. The growth of the manpower export industry is then discussed. Statistical data are provided.

Commission on Filipinos Overseas (CFO): A Bridge Across the Seas by Millena looks into the CFO's structure, programmes and activities. The CFO was created by Batas Pambansa No. 79 to protect the welfare of Filipinos overseas and to provide assistance to Filipinos who wish to migrate to other countries. As a special agency under the Office of the President, the CFO serves as the implementing arm of the state to foster and maintain close ties among Filipinos abroad. It is also supposed to establish a data bank to aid manpower policy formulation.

An Evaluation of the Philippine Overseas Employment Promotion Policy by Abrera-Mangahas explores the implications of the country's current employment strategy based on temporary labour migration. The need to assess both the gains and losses of this programme is crucial in the light of projections of larger worker outflows in the future. Tentative results indicate that, on the overall, the Philippines does enjoy benefits from the temporary outflow of workers. By itself, however, an overseas employment programme cannot be considered as a shortcut route to economic progress, nor should it form the basis of any long term strategy in national employment planning.

Sto. Tomas' Overseas Employment in the Philippines: Policies and Programs first gives a background on government regulation and supervision of overseas employment. It proceeds to discuss the various forms of government regulation and supervision, policy issues in overseas employment and overseas employment prospects.

De Guzman's Filipino Overseas Contract Workers: Problems and Prospects focuses on the conditions of and problems confronting the Filipino overseas worker.

De los Reyes' Storms and Squalls in Homes Where the Sailors Are Not looks into the situation of Filipino sailors and their families. Cases are cited to illustrate the personal problems experienced by sailors and their wives.

Juco's To the Middle East, with Hope reports on a research study which analysed the effects of international contract labour on the sending communities and families in the community, specifically social, economic and demographic conditions. At the macro level, the impact on the economy, the migrants themselves and their families was studied. Another article by Juco entitled Since You've Been Gone looks into the plight of migrant workers' wives and how they cope with the long absence of their husbands.

Descriptors: *International Migration; Emigration; Labour Migration; Socio-economic Conditions; Migrants; Philippines*

Source: Scalabrinians
39, 7th St. Off Gilmore Street
New Manila, Quezon City
Philippines

150. Peerathep Rungcheewin, and others. "Factors influencing Thai workers' decision to go to work in the Middle East countries and related labour problems," in: Suchart-rathsint, ed. *Population and development interactions in Thailand.* Bangkok, Pappim Press, 1983. 33 p.

The paper deals with factors influencing workers' decision to go to work in the Middle East countries and related problems of job placement. A sample of 500 workers who have worked in the Middle East and another 500 workers who have never been to the Middle East were interviewed. The main factor identified as affecting decision of Thai workers to go to the Middle East is the expenses which include opportunity cost and direct expenses. The opportunity cost is found to be more significant than the direct cost. The expected income is not a significant factor as all workers, regardless of overseas experience, are equally well-informed of the potential income. Level of education, knowledge of foreign language and skill training are also factors influencing the decision to work in the Middle East. The problems of going to work in the Middle East are divided into two categories: before going to the Middle East and during employment in the Middle East. The first category of problems includes high expenses for low-paying and unskilled labour job due to oversupply of such labour, high brokerage fees and malpractices of private job placement firms. The second category of problems includes homesickness, climate, language, social customs, and remittances of foreign earnings.

Descriptors: *Labour Migration; Socio-economic Factors; Emigration; Thailand*

Source: Prof. Dr. Suchart Prasith-rathsint
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

151. Perez, Aurora E. "Internal migration in the year 2000," *Philippine Labor Review* 2(2): 57-73, second quarter, 1977.

Analysis of the trends and patterns of internal migration and investigation of the underlying determinants of population distribution are given in this article. Estimates of future regional net migration for the period 1975-2000 are also presented.

An evaluation of past migration experience among Filipinos presents data supporting geographic mobility. In 1960, one Filipino in eight was living in a region other than that of his or her place of birth. In 1970, this proportion increased to one person in seven. Data also indicate long distance movements involving either inter-provincial or inter-regional movements. Rural-rural movements dominated 1975 migratory transfers before 1965, while rural-urban migration has accelerated and become prominent since then. Males dominated rural-rural migration; and females, urban-rural migration.

The author notes that migration's net effect for the prosperous or more developed region will be an increase in population. The net effect of net-migration for the depressed regions with corresponding replacement is to lessen the region's population, especially its young adults and children. A policy of redirecting migration to a new destination away from the current popular destination is recommended.

Projected rates of in-migration for the 1970-80 period show that Northern Mindanao, Southern Mindanao, and Metro Manila would experience a decrease, while other regions would have increases in their in-migrant sector or population. On the other hand, a substantial increase in out-migration rate for Bicol, Central Visayas, and Metro Manila is foreseen.

Estimates also show that the flows to Metro Manila and/or Mindanao regions will be the dominant streams. The most voluminous in-flow to Metro Manila would be the stream from the Central Luzon, whereas majority of in-migrants for Mindanao would come from the Central Visayas region.

As for the traits of the future population, estimates show that females in the younger and middle-aged groups would dominate the scene.

Descriptors: *Internal Migration; Migration Statistics; Philippines*

Source: Philippine Labour Review
Ministry of Labour Building
Intramuros, Manila
Philippines

152. "Special report on Middle East migration," *Economic Review* 7(1): 3-17, April 1981.

There is a series of articles in this issue relating to Middle East migration. The lengthy article on Middle East migration carries a number of tables, viz: Middle East employment (1980), Passports issued in Sri Lanka (1980), Remittances to selected countries by migrant workers (1978), Sri Lankans who obtained employment in the Middle Eastern countries, 1978-1979, by occupation and Sri Lankan women who obtained employment in the Middle Eastern countries. The article traces the outflow of workers, and how beneficial this migration is to Sri Lankans, and the economy as a whole. On the debit side important public services are affected as a result of the loss of skilled manpower, e.g. transport services have suffered from the dearth of drivers. But on the credit side there is the beneficial impact on the unemployment situation, foreign exchange remittances made by migrants and experience gained by migrants in working on large construction undertakings. The paper also examined the impact of employment in the Middle East in a village, Kurunduwatte. It concluded that migration has helped to break down socio-economic barriers.

Descriptors: *Labour Migration; Emigration; Socio-economic Factors; Sri Lanka*

153. Sumalee Pitayanon. "The impact of short-term contract overseas employment of Thai workers on the economy of rural households and communities: a case study of northeastern villages," in: Suchart Prasith-rathsint, ed. *Population and development interactions in Thailand.* Bangkok, Pappim Press, 1983. 37 p.

The study tries to investigate the impact of short-term contract overseas employment of Thai workers on the economy of rural households and communities in the Northeast. A sample of 354 households with members working overseas were interviewed. The main findings are: after the workers have worked for a period of time, they start remitting home a considerable amount of money. This enormously increased household income and expenditures and eventually the standard of living of the rural families. Remittances are spent on household consumption, education, amenities of life, land and housing. Some is saved or invested in agricultural and/or non-agricultural activities such as trading. An increase in income from overseas remittances causes only a minimal withdrawal of lalabour from economic activities, a slight reduction in the amount of time spent on agriculture, and an increase in demand for hired labour, and labour saving machines. With better communications and transportation, villagers prefer going into town to buy goods and services, thus reducing the volume of sales and the amount of investment in the communities.

Descriptors: *Migrant Workers; Economic Conditions; Rural Communities; Thailand*

Source:
Prof. Dr. Suchart Prasith-rathsint
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

154. World Bank. *Labour migration from Bangladesh to the Middle East,* by Ali Syed Ashraf, and others. Washington, D.C., 1981. 395 p. (World Bank staff working paper no. 454).

This study was prompted by the lack of knowledge regarding the economic and social implications of labour migration from Bangladesh. Some of the problems discussed are spending of migrant families, the labour market, training needs, implementation of development projects, domestic savings and investment and income distribution. The study has seven chapters. Chapter One deals with the development of manpower export and gives a profile of migrants from Bangladesh. This chapter also traces the historical development of the manpower export policy of the Government and the characteristics of the migrants from Bangladesh. Chapter Two gives an analysis of the influence of home remittances by Bangladesh nationals and focuses attention on the wage earner scheme, the methods and channels of remittance, their levels and their effects on money supply and inflation. Chapter Three gives an analysis of the impact of remittance money on household expenditure in Bangladesh. Chapter Four classifies the migrants into five groups and estimates the cost of training migrants. Chapter Five assesses the impact of labour migration from Bangladesh on selected groups of educated and skilled manpower in the national economy. Chapter Six gives projections of manpower demand in the Middle East by country and occupation. Chapter Seven presents a social cost-benefit analysis of manpower export from Bangladesh. Chapter Eight discusses policy recommendations and implications for promoting manpower export from Bangladesh. This is a study which raises both procedural and policy issues and makes important recommendations with regard to manpower export from Bangladesh.

Descriptors: *Labour Migration; Manpower Planning; Migrants; Bangladesh*

Source: The World Bank
1818, H Street, N.W.
Washington, D.C. 20433
U.S.A.

SECTION NINE: URBANIZATION AND DISTRIBUTION

Urbanization and Distribution

The 11 selections under this section deal with urbanization, which refers to the growth in the proportion of a population living in urban areas. The abstracts focus on three basic aspects of urbanization. First, the majority of the entries deal with urbanization from a demographic perspective covering processes, trends and level of urbanization. This includes tracing the historical processes of urbanization indicating which period effected an increase in the level of urbanization, statistics on urban growth rate, which parts of the country have become most urbanized and which places are still predominantly rural. Also factors which have contributed to urbanization are discussed. Four selections go into an in-depth discussion of rural-urban migration as a determinant of urbanization.

About five entries look beyond the statistical-analysis perspective of urbanization by dealing with the issue on a more holistic manner. Such materials place these statistics in a more meaningful context through an analytical discussion of the determinants and consequences of rapid urban growth and solutions to the problems brought about by urbanization. These selections enumerate the following determinants of population distribution and urbanization: (1) physical or natural factors; (2) cultural factors; (3) social attitudes and institutions; (4) stage of economic development and political factors; (5) demographic factors such as differential birth and death rates and migration streams. A number of studies on the other hand have looked upon the consequences of urban growth as both positive and negative. One publication states that at higher levels of development, the impact of regional urban centres is beneficial. Otherwise most of the selections discuss the negative effects of high urban growth on the environment, human settlements, provision of social services, peace and order, employment, health, etc. Finally, four abstracts stress the need for a national plan for urban centres, specifically recommending that a national growth strategy and explicit urban development policy should be formulated and become an integral part of the economic development policy of the government. These include establishment of major growth poles and growth centres.

The third aspect dealt with by two entries focus on the effects of urbanization on housing and human settlement. One selection points out that the most critical problem that rapid urban growth has brought in its train in the Third World countries has to do with housing provision. The mushrooming of squatter areas and the problems they pose in the cities is the central theme of these entries. Most cities in Asia, according to reports, have grown up haphazardly and are characterized by congestion, inadequate space for living, chaotic land use patterns and lack of urban amenities.

Demography and its bearing on population education

Urbanization is most often taken up together with migration in population education. Migration is seen as the main cause of overpopulation in urban centres. To help discourage migration in the urban areas and prevent congestion in the cities, population education contents are integrated into subjects such as social studies, geography and health which include units on population distribution and urbanization. In geography, a unit on spatial interaction discusses population movement and city problems, concentration of rural population in the cities, types of population concentration in cities, and phenomena of population concentration in the cities. The objectives of a lesson on urbanization should include the development of a better understanding of the development of urbanization in developed and developing countries, identification of the problems that the process of urbanization brings about and the understanding of strategies and schemes for planning urban construction. With regard to health education, urbanization is taken up vis-a-vis its effects on man's health and well-being. One lesson can focus on the effect of overcrowding in the homes and communities on health, housing and environmental sanitation. It can also emphasize that overcrowding is a condition conductive to the spread of communicable diseases.

155. Economic and Commission for Asia and the Pacific. *Report of the Advisory Committee on Migration and Urbanization on its second session.* Bangkok, 1980. (Asian population studies series no. 48), p. 8-9.

The ESCAP Secretariat designed a research project on "The Relationships of Migration and Urbanization to Development in 1977". At the Third Asian and Pacific Population Conference held in Colombo in 1982, migration and urbanization were again identified as two of the topics of vital interest in the region. The census analysis was assigned to Malaysia, Pakistan, Thailand and the South Pacific Region with special reference to urbanization and migration. It was found that urbanization had increased rapidly in Pakistan after partition in 1947 when the cities absorbed Muslims displaced from India. The tempo of urbanization had declined in the 1960s. About 30 per cent of the total population of Pakistan were lifetime migrants as defined by the Housing, Economic and Demographic Survey of 1973 (HED). Migrants, in common with those of other countries, tended to be young adults.

Descriptors: *Urbanization; Migration; Migrants; Pakistan*

Source:
Clearinghouse and Information Section
ESCAP Population Division
Rajdamnern Avenue
Bangkok 10200
Thailand

156. Gaminiratne, K.H.W. *Some aspects of urbanization in Sri Lanka.* [Colombo, Communication Strategy Family Planning, Ministry of Information and Broadcasting], 1976. 18 p. (CSFP occasional paper, 3).

The objective of this paper according to the author are "to discuss the urbanization trends in Sri Lanka and identify the factors that have affected this process. The paper is divided into three major parts. Part I outlines the observed trends in urbanization. In Part II an attempt is made to understand the process of urbanization, using Colombo as a case study. Part III deals with factors that have determined urbanization trends in the country. In the final analysis the author comes to the conclusion that the degree of urbanization in Sri Lanka is an over-estimation to a large extent. He is of the view that a sound and rational policy of limitation of urban areas in the country is essential. Regarding migration, the author finds it difficult to generalize regarding future trends. As for the national increase of the population, a marked increase in the crude death rate from the present level cannot be expected in the future, but there are factors leading to a possible decline in fertility, e.g. expansion of the family planning programme and rise in the mean age at marriage. The negligible difference between the rural and urban fertility rates emphasize the limited nature of urbanization in Sri Lanka.

Descriptors: *Urbanization; Migration; Demographic Factors; Sri Lanka*

Source: Communication Strategy Family Planning
Ministry of Information and Broadcasting
Colombo
Sri Lanka

157. "The growth of urban population in the Philippines: 1975-1980," *Journal of Philippine Statistics* 33 (3): 19-21, n.d.

This paper attempts to show the extent of growth of the urban population in the Philippines for the period 1975 to 1980, using the final report of the 1980 census of population and the special barangay schedules sent to the municipal or city census supervisors during the 1980 census of population and housing.

Following are the major findings:

1. A significant rise in the level of urbanization was observed during the 1975 to 1980 period. In 1975, a total of 14,046,527 of the total population of 42,070,660 were living in urban areas. In 1980, 17,940,733 or 37.3 per cent of the country's total population were living in urban area.
2. The urban sector absorbed a notably larger share of the country's total population during the 1975-1980 period. The total population increased by 14.3 per cent between 1975 and 1980. The urban population increased by 27.7 per cent while the rural population increased by 7.6 per cent.
3. All 13 regions in the country experienced increases in levels of urbanization. The number of regions with an urban population of one million or more persons increased from 4 in 1975 to 6 in 1980. Metropolitan Manila had the highest population with 5,925,884 persons, followed by Region IV (Southern Tagalog) with 2,257,735. Region III (Central Luzon) ranks third with 2,009,259 persons.
4. In terms of population size, the first ten largest cities in the country in 1980 were Manila, Quezon, Davao, Cebu, Caloocan, Zamboanga, Pasay, Bacolod, Iloilo, and Cagayan de Oro. Of these cities, Davao, Zamboanga and Cagayan de Oro included populations which were not urban. Davao City had 33.0 per cent of its total population classified as rural while Zamboanga City had 75.9 per cent and Iloilo City, 25.0 per cent.

Descriptors: *Urban Growth; Urban Population; Philippines*

Source: Journal of Philippine Statistics
National Census and Statistics Office
Ramon Magsaysay Blvd., Sta. Mesa
Manila
Philippines

158. Mendis, M.W.J. "An analysis of the intercensal growth of towns in Sri Lanka; its relevance in urban planning and development," *Development Planning Review* 1(1 & 2): 1-13, December 1982.

In this paper the intercensal growth rates of the towns of Sri Lanka are analysed so as to determine the pattern of growth rates to identify the towns which have high growth rates, to quantify the magnitude of the increase in population in the towns, and analyse the potentials and constraints of growth in various towns in the promotion of their own development. The growth rates are indicated in Table 1 and the town with the highest growth rate has been Kilinochchi. Table 3 gives the population growth rates as over 3.0 per annum, for Sri Lanka. Page 5 has a map which shows the distribution of towns with high rates of population growth. In the concluding section of the paper, Professor Mendis discusses planning implications of the growth of towns and makes a number of recommendations: (1) A national growth strategy should be formulated; (2) This should be an integral part of the economic development strategy of the Government; (3) An explicit urban development policy should be formulated; (4) Urban-rural complementarities should be strengthened in the context of regional plans; and (5) Further studies should be done in the towns with excessive and negative rates.

Descriptors: *Urban Growth; Urban Planning; Sri Lanka*

Source: Department of Town and Country Planning
University of Moratuwa
Sri Lanka

159. "Metropolitan Development," *Economic Review* 3(1): 3-15, April 1977.

Sri Lanka has only a single dominant metropolis in Colombo. The consequences of this centralization have been increases in the absolute numbers in the population and the subsequent competition for housing and land. The problem of housing has assumed alarming proportions in the metropolitan area as a whole. The slum and shanty dwellers form 40 per cent of the population. The city is now a sprawling metropolis of four million persons (1973). The urban-rural balance in Sri Lanka has not prevented the disproportionate growth of the metropolitan area of Colombo. The most obvious direction for a growth corridor are either inland to Kandy, southwards to Galle or north-central towards Anuradhapura. Urbanization in Sri Lanka is not as devastating a force as in many developing countries. For action to follow metropolitan development, a conceptual basis in planning must be resolved. Four alternative strategies suggested by the U.N. Colombo Master Project are: (1)

Allow a continuing high concentration of people in the Western Province and create infra-facilities for industry; (2) Establish one major growth pole; (3) Establish agencies of growth centres with population 75,000-150,000; and (4) Establish a central growth centre.

Descriptors:	*Urban Development; Urban Planning; Sri Lanka*
Source:	People's Bank Research Department Sir Chittampalam A. Gardiner Mawatha Colombo 2 Sri Lanka

160. Pernia, Ernesto M., and others. *The spatial and urban dimension of development in the Philippines.* Manila, Philippine Institute for Develment Studies, 1983. 345 p.

The first part of this book deals with the historical processes or urbanization and spatial concentration of population, factors that influence manufacturing concentration and population movements, and the effects of urbanization on agricultural productivity.

An analysis of data reveals that despite a steadily rising level of urbanization, the Philippines remains a predominantly rural country. As of 1980, only about 36 per cent of the total population live in urban areas. A notable aspect of the country's spatial and urban development, however, has been the increasing concentration of economic activity in Manila. This situation can be attributed to the concentration of manufacturing activity in the area. During the American colonial period (1900-1939), agricultural regions were the centre because they maintained agricultural productivity.

The influence of urbanization on agricultural labour productivity is negative, or in the nature of a backwash effect, with low levels of regional development. Cities tend to develop at the expense of the farms. At higher levels of development, however, the impact of regional urban centres is beneficial. Findings of the study point to the need for a national spatial development policy that would bring together all seemingly disparate policies, the macro-economics and tract policies in addition to a countryside dispersal programme.

The second part of this book has three objectives: to analytically describe the evolution of the urban and regional economy from 1900 to 1975; to determine the extent to which spatial development has been influenced by public policies in addition to historical and socio-economic forces; and to identify the determinants of the locational concentration of manufacturing activity. Changes in the spatial pattern and the structural transformation of the Philippines from an agricultural to an industrializing economy are responses to changing policy regions and market forces. The early phase of economic development is characterized by the growth of agricultural regions and agro-based population centres. The change in policies during the past period resulted in the neglect of agricultural development. Manila then emerged as the country's urban-industrial centre, attracting both the population and economic resources of the other regions. By 1975, the concentration of manufacturing activity in Manila became more pronounced. Material orientation, market orientation, labour force orientation and some policy aspects explain the spatial concentration of manufacturing activity in Manila.

Descriptors: *Population Distribution; Urbanization; Economic Factors; Urban Policy; Philippines*

Source:
Philippine Institute for Development Studies
NEDA sa Makati Building
Amorsolo Street
Makati, Metro Manila
Philippines

161. Philippines. Ministry of Education, Culture and Sports. Population Education Program. *Population distribution and density.* Module no. 7 of "A module in population education for elementary and secondary school teachers." Second edition. Manila, 1984. 18 p.

This module discusses the basic aspects of population distribution and density. It provides factual information on the dispersal of population over certain areas as well as the concentration of population per unit area. Information on why some parts of the world are thickly populated while others are not is also given. The dispersal of people over certain areas are affected by geographical and cultural factors. During the prehistoric period, the dispersal of population in the world was determined by (1) the nature of the physical environment; (2) the techniques and the tools developed by people to make use of resources found in their particular environment; and (3) their social organization.

Distribution of the popultion in modern time, however, are affected by different factors. Among them are: (1) physical or natural factors, including climate, terrain, water, soil, mineral; (2) cultural factors, social attitudes and institutions, stage of economic development and political factors; and (3) demographic factors such as differential birth and death rates and the migration streams. Recent data on the distribution of the world's population show that Africa has a population of 100 million; Latin America, 12 million; Asia (excluding U.S.S.R.) 327 million and North America, 100 million.

As to the distribution of the Philippine population, data show that in 1981, the National Capital Region had a population of nearly 8 million; Region 3, 230.9 thousand; Region 8, 226.5 thousand, and Region 2, 53.1 thousand. The most densely populated area is the National Capital Region or Metro Manila with 7,814.5 persons per square kilometer. Cagayan Valley or Region II is the most sparsely populated.

Migration is the major factor that accounts for the uneven distribution of Philippine population. As of 1975, data show that Southern Tagalog or Region 4 received the highest number of migrants followed by Southern and Northern Mindanao. On the other hand, Region I or the Ilocos region ranks first as an out-migration area.

Descriptors: *Population Distribution; Population Density; Migration; Philippines*

Source: Population Education Program
Ministry of Education, Culture and Sports
Palacio del Gobernador
Intramuros, Manila
Philippines

162. Raymundo-Mejia, Corazon. "Population growth and urbanization," in: Concepcion, Mercedes B. ed. *Population of the Philippines: current perspectives and future prospects.* Manila, National Economic and Development Authority, 1983, p. 65-77.

This paper discusses urbanization trends at the national and regional levels in the Philippines. Emphasis is on post-war urbanization, beginning 1948 for national level analysis and 1970 for regional analyses. Changes in urbanization levels and trends are analysed in the context of the link between development and urbanization. The rise of Manila as a primate city is a special feature of Philippine urbanization.

The lack of material limits the study of trends in urbanization during the pre-war period. Available data, however, show that in 1903, about 13.1 per cent of the total population enumerated lived in urban areas. Since 1903, the general urbanization trend has risen, except for the 1903-1918 interval. Changes in levels of urbanization have been attributed to: different policies of colonialism between Spaniards and Americans; shifts in socio-economic development policies within and between regimes; and the peace-and-order situation.

The link between socio-economic development and the dynamics of spatial distribution was already observed in the early part of the century. Post-war trends in urbanization are characterized by sudden increase as the new

American colonial rule began industrialization and Filipinization efforts, a sudden decline during the 12 years following 1948, and an increase again in 1980. The growth of Manila as the primate city shows the highly polarized urbanization process. Manila is the only region that completely changed from rural to urban before 1970. Population growth has significantly contributed to urban growth. Unchecked rapid population growth can offset the impact of development efforts on urbanization.

Descriptors: *Urbanization; Urban Density; Urban Planning; Socio-economic Development; Philippines*

Source: Population/Development Planning and Research Project
National Economic and Development Authority
Pasig, Metro Manila
Philippines

163. Raymundo-Mejia, Corazon. "Recent development and the emerging pattern of human settlements," in: *Perspectives for population and development planning.* Paper for the Sixth National Welfare Congress, November 1983. 26 p.

This paper tries to illustrate recent patterns in urban and rural settlements in the country. This supports the view that the population will distribute itself evenly among geographic areas if development is distributed evenly among these geographic locations. Furthermore, this distribution is also characteristic of socio-economic development.

Here are some findings: (1) Until 1960, most migrants were drawn toward the less populated agricultural provinces; thus, rural-to-urban movements; (2) Between 1960-1970 industrialization was emphasized, encouraging more migrants to head for the industrializing areas in urban enclaves; (3) Urban population growth is a result of rural-to-urban migration, natural increases, and reclassification of previously rural areas as urban; (4) Between 1965 and 1970, 30 per cent of 2 million moves by migrants 15 years and older had Manila as area of destination; (5) The combined urban population of less urbanized and rural regions around the country are still smaller than Metro Manila's total (wholly) urban population; (6) Urbanization of more areas has affected all regions since 1975, as policies and programmes have been evolved "to bring development to the country side and disperse industrialization"; and (7) The development of rural barangays seems to deter migration and encourage return migration.

Descriptors: *Urbanization; Migration; Population Distribution; Philippines*

Source: Population/Development Planning and Research Project
National Economic and Development Authority
Amber Avenue
Pasig, Metro Manila
Philippines

164. Steinberg, Florian. "The urban housing question, Sri Lanka," *Economic Review* 7(9 & 10): 25-26, December 1981-January 1982.

This thesis deals with the problem of slums and squatter settlements (shanties) in urban Sri Lanka, mainly in its capital, Colombo, where up to 60 per cent of its inhabitants live in slums and shanties. Till recently, the housing policies in Sri Lanka were mostly designed to serve the middle class and the privileged sections of the working class. In the 'seventies, the Housing Authorities started to formulate a policy of slum and shanty rehabilitation but experience has shown that the "new" housing reform policies are not fulfilling the housing needs of the urban poor. The most dominant problem of the urban poor is not housing but employment and social security. Hence all housing strategies for the urban poor have to incorporate and combine the social question and the housing question. Self-help housing has made an important contribution towards an improvement of the housing situation but it is only an emergency measure, not a permanent solution to the problem of housing the urban poor.

Descriptors: *Urban Population; Slums; Urban Policy; Sri Lanka*

Source: People's Bank
Research Department
Sir Chittampalam A Gardiner Mawatha
Colombo 2
Sri Lanka

165. "Urbanization in India," in: Goldstein, Sidney and David F. Sly. *Patterns of urbanization - comparative country studies.* Liège, International Union for the Scientific Study of Population, n.d., p. 298-337.

This publication represents the culmination of a four-year programme of activities designed to advance research on urbanization by the Committee on Urbanization and Redistribution. There are 11 country studies and an overview of world urbanization patterns. The chapter on urbanization in India, "A Demographic

Perspective" by Ashish Bose, gives the historical background and traces the growth of urban population from 1901 to 1971. How far migration has affected urban growth is next assessed.

Some critical issues of urbanization, the environment and human settlements are then discussed. A basic issue which needs attention is the reversal of the policy of the colonial pattern of settlement in which the housing and transportation systems catered to the needs of the affluent. Lastly, the author makes his comments on urbanization and development. Industrialization has not been an important instrument of economic regeneration. There is a great deal of urban poverty, even in the million-plus cities of India.

Descriptors: *Urban Development; Human Settlement; Environment; Migration; India*

Source: International Union
for the Scientific
Study of Population
5, Rue Forgeur
400 Liège,
Belgium

CHAPTER TEN: IMPACT OF POPULATION GROWTH ON SOCIO-ECONOMIC AND EDUCATION VARIABLES

Impact of Population Growth on Socio-Economic and Education Variables

The impact of population growth can be felt in almost all aspects of life. Rapid population growth affects a country's health, food, education, environment, housing, employment, transportation and other requirements. In turn, providing for these requirements creates many problems that demand the full exploitation of a country's resources.

Abstracts in this section specifically probe the implication or impact of fertility and population growth trends in the areas of food, health and nutrition, education, housing, natural resources, ecology and environment, employment and labour participation, economy and law.

There are 22 entries in this section. Four deal with the effects of population growth on food supplies, nutrition and health. These selections point out that rapid increase in population has not been matched by corresponding increases in the average per capita food production. The imbalance between adequate food supplies and population size result in an immediate and direct impact on food requirements and the level and adequacy of food intake. A number of these entries also look into the patterns and levels of food consumption, the uneven distribution of food and the incidence of malnutrition.

One selection points out that population growth has been increasingly recognized as a major variable affecting educational development. Large increases in the size of the school-age population can hinder attainment of educational targets and slow the improvement of the quality of education. In developing countries, for instance, limited school facilities can hardly accommodate the growing number of pupils. This has led to increase in the illiteracy rate and in the number of out-of-schol youths.

One entry which correlates population growth with employment and labour participation states that an increase in the population size has the effect of increasing the labour force. In many developing countries with a very limited labour market, an increase in the size of labour force leads to an increase in unemployment rate. Two of these entries also examine the compatibility of the statistical data on labour force, the major determinants of labour force and analysed the labour force trends and their relationship to population. An abstract on population and natural resources shows that rapid population growth increases population pressure on land, forest, mineral and fishery resources resulting in their depletion and inability to supply the needs of the growing population. It stresses that there is no problem with a large population per se. There is a problem when the resources available cannot meet the requirements of the population.

Three entries examine the effects of rapid population growth on the environment. The papers present a grim picture of how increases in population contribute to pollution, food contamination, overcrowding and other health and sanitation hazards. Three selections look into the legal aspect of population dynamics. Two papers support the use of legal measures to curb population growth. The others review the population policy of the countries and discuss laws that could affect the population and the practice of family planning. These include laws pertaining to compulsory education, social security, child labour, status of women, environmental and consumer protection, abortion, artificial insemination, tax laws on population, contraception and sterilization, citizenship and migration laws and criminal laws relating to sexual activity.

With regard to economy vis-a-vis population growth, two entries examine the economic effects of rapid population growth. One selection shows that in principle, population growth is considered good for the economy because it challenges the human spirit to be more diligent, creative and productive and increases aggregate demand and hence, stimulates production and investment. However, this principle does not necessarily apply in developing countries with a high population growth and a low per capita income. It is pointed out instead that rapid population growth will only contribute to a low per capita income, low savings and inadequate social services. A reduction in fertility, on the other hand, can stimulate economic growth and consequently alleviate poverty in the country. One entry on housing gives details of land availability for housing in view of increasing population pressures on land.

The last group of four abstracts are general in nature since the selections do not focus on any one of the various aspects of quality of life, but by and large encompass more than one of these aspects or relate to all of the topics of quality of life. Some of these entries approach the correlation on a macro level while some show the impact of population growth on the family level. Another distinguishing characteristic of some of the selections in this group is that they consider a chain of relationships rather than the relationship between population and one other variable or vice-versa.

Data presented in this section may now serve to make discussion of the consequences of large family size and rapid population growth more relevant, scientific and authoritative. Earlier, trainers and teachers were constrained to rely mainly on theoretical assumptions with regard to correlating rapid population growth to socio-economic and educational variables. Now, many empirical studies have been undertaken and research reports written to prove the message that rapid population growth has negative implications for the different aspects of life, both at micro and macro levels.

166. Calado, R.R. "Population growth and educational development," in: Economic and Social Commission for Asia and the Pacific. *Population of the Philippines.* Bangkok, 1978. (Country monograph series no. 5), p. 231-261.

This article presents data showing recent trends as well as the present status in regard to literacy, school-age population and enrolments, retention ratios and educational attainment. Then it proceeds to discuss future prospects in respect of all these. A concluding section is devoted to a discussion of the implications of population trends for education.

The article points out that population growth has been increasingly recognized as a major variable affecting educational development. From 1960 to 1975, the population aged 7 years to 12 years increased roughly by 50 per cent, while the 13- to 16-year olds and 17- to 20-year olds showed increase of 83 to 73 per cent respectively. The projections are that by 1984, the population elementary school age will have increased by two thirds and that of the other two age groups will have more than doubled. In accommodating the anticipated increase in numbers, it is not overall increase in enrolment itself but its distribution among the various levels of education that would impose a severe financial burden. This is because the cost of a student place in secondary education is about five times the cost of a student place in elementary education, while for tertiary education the proportion is as high as 1 to 20. As the country has nearly achieved universal primary education, no great effort is needed to accommodate the increase in numbers, but the financial burden imposed by the increase in numbers at the secondary and tertiary levels would be.

Mortality is also related to family size. Mortality in the first two years increases with parity and family size. This phenomenon of increased mortality in the first two years of life is observed in both developing and developed countries.

Descriptors: *Educational Needs; Educational Development; Philippines*

Source: Clearinghouse and Information Section
ESCAP Population Division
Rajdamnern Avenue
Bangkok 10200
Thailand

167. Centre for Society and Religion. *Sri Lanka and the environmental crisis.* Colombo, n.d. (Dossier 81).

This dossier brings into focus the magnitude of the problems that are inherent in any process of development if the earth's natural resources and environment are not adequately protected for such a development. There are certain sections which have specific reference to population problems. The section entitled, "Population, Pollution, Plunder", shows how environmental problems stem from the growth of the human population, and how increase in population leads to a drain on the finite resources of the earth. The discussion of the use of pesticides and their effects on human beings as well as the section on "Pollution", are of vital importance in the context of the welfare of population. It also gives a table of pollutants and their effects on human health. This table presents a sordid picture of human health as affected by pollutants. The document stresses the urgent need for the establishment of a Central Environmental Authority.

Descriptors: *Health; Environmental Effects; National Resources; Sri Lanka*

Source: Centre for Society and Religion
281 Deans Road
Colombo 10
Sri Lanka

168. Chandrasekhar, S. *Population and law in India.* Bombay, Blackie & Sons (India) Limited, n.d., 157 p.

Dr. Chandrasekhar, a renowned Indian demographer bases this essay on his presidential address to the National Seminar on Population and Law. He urges that all possible avenues be explored to curb the nation's birth rate. He feels that the subject of law and population has been somewhat neglected in the country. A beginning must be made to use existing laws to control the nation's population explosion. Family planning is urgent in the nation's interest. Compulsory sterilization after two or three children must be considered in the light of the welfare of the nation. Those couples determined to have more than the stipulated number of children should adopt homeless children. The author also comments on the legal position of the State to use compulsion in limiting the size of the family. He goes on to say that the reasonable regulation of population growth is the moral duty of every citizen. The nation needs disciplined and dedicated citizens who are willing to do their duty.

Descriptors: *Law; India*

Source: Centre for Population Studies
Annamalai University
35 Thayumanavar Street
Villapuram-605602
Tamil Nadu
India

169. De Mel, Beatrice, and T. Jogaratnam. "Population growth, nutrition and food supplies in Sri Lanka," *Marga* 4(3): 60-83, 1977.

The basic objective of this study is to explore the implications of population growth for food and nutrition. The available evidence indicates that food supplies have been sufficient on average to meet nutritional requirements. The food supply, however, is characterized by an overwhelming dependence on starchy staples and vegetable fats. Surveys done here revealed an inadequacy of calories, calcium, iron and riboflavin. Population is projected to increase from 50 to 100 per cent by the year 2000 depending on the fertility assumptions made. The outlook for protein supplies is not bright. Major shifts of government policies and commitments of resources will be required to ensure adequate levels of nutrition for the population of Sri Lanka. The article has a number of food balance sheets and tables relating to nutrition in the country.

Descriptors: *Food Supply; Nutrition; Sri Lanka*

Source:
Marga Institute
61 Isipathana
Mawatha
Colombo 5
Sri Lanka

170. Economic and Social Commission for Asia and the Pacific. *Comparative study of population growth and agricultural change - case study of India.* Bangkok, 1975. 131 p. (Asian population studies series no. 23).

This study was designed to assist in clarifying the relation between population pressure and agricultural change through time series analysis with an ultimate objective of providing better understanding for setting development goals.

The study is based on the analysis of demographic and agricultural data of two states in India - viz. Punjab and Orissa. The main factor causing differences in population growth between the two states is the differential mortality. There is fairly reliable evidence of decline in birth rates in some of the prosperous districts of Punjab, while there is no such indication in Orissa. The hypothesis of special interest is the mutual response of demographic and agricultural variables to population pressure. The hypothesis is strongly confirmed only by the experience of the Punjab in the decade 1951-1961. The trends in other decade did not support the hypothesis. It cannot be firmly concluded that population is the motive force in agricultural development.

Descriptors: *Agricultural Development; Demographic Factors; Comparative Analysis; India*

Source: Clearinghouse and Information Section
ESCAP Population Division
Rajdamnern Avenue
Bangkok 10200
Thailand

171. Economic and Social Commission for Asia and the Pacific. *An integrated approach to population, food and nutrition policies and programmes for national development.* Report of a Regional Seminar, United Nations, 24th-31st July 1979. Bangkok, 1979. 39 p. (Asian population studies no. 45).

The Regional Seminar on an Integrated Approach of Population, Food and Nutrition Policies and Programmes was held at Bangkok from 24th-31st July, 1979, sponsored by ESCAP. Four specific objectives were (1) to catalogue and exchange information; (2) to formulate guidelines for suitable strategies; (3) to suggest action-oriented integrated programme; and (4) to ensure co-operation and coordination. The current situation in the ESCAP region was reviewed at the seminar. The problems in Bangladesh are given. Bangladesh is confronted with serious problems in the areas of population, food and nutrition because the food supply fell short in both quantity and quality in relation to the needs of the nation. India has revised food production and the birth rate had come down to 33 by 1977 but in the past two years (1977-1979) there has been a setback in the programme. Nepal is a very poor country where nearly 40 per cent are listed below the poverty line. Agricultural production has stagnated. A multi-sectoral coordinated approach is necessary for promotion of nutrition. In Sri Lanka, a new Division, The Food and Nutrition Policy Planning Division, launched a five-year programme (1972-1976) emphasising family planning. New financial incentives are given to acceptors but there is a lack of co-ordination in the operational family planning programmes. In Pakistan, nutritional implementation programmes are at various stages of implementation. The seminar agreed that the initiative in developing an integrated government policy should come from the highest national planning and policy-making agency.

Descriptors: *Food Policy; Nutrition Policy; Asia*

Source: Clearinghouse and Information Section
ESCAP Population Division
Rajdamnern Avenue
Bangkok 10200
Thailand

172. *Economic Review*, volume 5, no. 11 - *Special report on environment*, February 1980, p.3-16.

There is a long article in this issue under the caption "Environment" and a short article by Renton de Alwis. The main article says that in recent years the grading of the human environment has been attempted by many workers in view of the congestion of the population in cities. He examines the problem of environmental pollution and divides this topic into Industrial Pollution, Ocean Pollution and Cultural Pollution. There is a special section on the Mahaweli Area where the author feels there is an urgency for environmental management, in view of the new settlements. Industrial pollution is one of the most visible, but hardest to control. With regard to food contamination, it has been found that "keera" (green leaves), some vegetables and pulses contained insecticide residues which were injurious to health. Air pollution from vehicular traffic and other engines is taking its toll not only of human health but also of the ancient treasures of our heritage. The oxides of nitrogen are particularly harmful to the lungs. Noise pollution is a feature of highly-populated industrial areas, highways and airports. Constant exposure to loud noise results in permanent hearing loss. Ocean pollution results in loss of marine life. Three major sources of cultural pollution are noticeable - tourism, conspicuous consumerism and population centralization, with its attendant evils. Renton de Alwis, in his article, pleads for a national strategy for managing the world's natural resources.

Descriptors: *Environmental Effects; Health; Pollution; Sri Lanka*

Source: The People's Bank
Research Department
Sir Chitamapalam A. Gardiner Mawatha
Colombo 2
Sri Lanka

173. Future Group. *The effects of population factors on social and economic development*. Rapid resources for the awareness of population impacts on development. n.p., 1980. 52 p.

This analysis of Sri Lanka's population problems is provided by the "Futures Group" in conjunction with RAPID (Resources for the Awarness of Population Impacts on Development) as a presentation which would be helpful to policymakers and scholars in understanding the effects of population growth and distribution on the economic and social development of the country. After stating the national development objectives of Sri Lanka, the author goes on to "Population Dynamics" under which the momentum of population growth, birth rates, death rates, migration and age distribution are given. The next section entitled "How Sri Lanka's Population Characteristics will affect National Objectives" gives details of Mahaweli Ganga project, education, health, housing, forestry and expenditure and social services. In conclusion, the author says that "although development and family planning programmes, show tremendous insight on the part of Sri Lanka's planners, the disturbing trends in increasing birth rates show that continued efforts must be made to reduce the rate of population growth.

Descriptors: *Population Dynamics; Socio-economic Development; Sri Lanka*

174. Goonesekera, R.K.W. and W.S. Weerasooria. *Report of the National Seminar on Law and Population in Sri Lanka at the Bandaranaike Memorial International Conference Hall, Colombo, 16-18 January 1984.* n.p. [1984]. 29 p., annexures.

The National Seminar on Law and Population was organized by the Law and Population Project, Sri Lanka and was held at the Bandaranaike Memorial International Conference Hall from 16th to 18th January 1984. Seventeen papers were read and the seminar was addressed by the Deputy Ministers of Health and Justice and a number of officials from the government sector as well as representatives of foreign missions in Sri Lanka. Some interesting features of the seminar are reported in this publication which covers the complete seminar. The first paper is by Dr. Wickrema Weerasooria on "Law and Population". A legal approach to the population problem of Sri Lanka had not been discussed at a seminar before, and therefore evoked much interest. The discussion centred around a few specific areas of the law that directly or indirectly affected population growth or decline. Other papers of topical interest were "Labour and Welfare Laws and Their Bearing on Population", "Contraception, Sterilization and Abortion", Legal Status of Women and the Institution of the Family", "Citizenship, Immigration and Emigation Laws". A number of recommendations were made, one of which was the establishment of a central authority on population problems.

Descriptors: *Legal Aspects; Sri Lanka*

Source:
UNFPA
c/o UNDP
P.O. Box 1505
Colombo
Sri Lanka

175. "Implications of RPG on health care," *Reproductions*, vol. 4, no. 51, August 1976.

The article states, "There is a very profound and intense relationship between health status and the rate at which a population grows." The group's health status reflects their reproductive characteristics, and may affect the rate at which a population increases. On the other hand, the rate at which a population grows also has a bearing on the health requirements and health status of a population.

Improvements in health technology have brought about rapid declines in the death rate. In Western European and North American countries, health technology was applied slowly over decades, and the death rates dropped more closely. In less developed countries like the Philippines, general improvement in health has led to the current increased natural fecundity, decreased mortality and consequently, rapid population growth. Most population-related efforts in these countries are now aimed at reducing the population growth rate through the introduction of contraceptive programmes.

The large scale effects of public health measures in less developed countries have been exhausted, and in some countries, it is unrealistic to expect more significant health improvements through such measures without starting more elaborate and more expensive programmes. The people's health needs tend to vary with age structure. Young age structure demands higher health requirements than old age structure. Thus, developing countries with young age structure require relatively higher health services. Considering the high fertility level in less developed countries, much of the health services will be concentrated on maternal and child care. The article points out that if health services remain constant (for some reasons, in less developed countries, they tend to remain constant), the rapid growing population will consequently suffer from greater morbidity and mortality.

Descriptors: *Health Conditions; Health Services; Population Dynamics; Philippines*

Source:
Institute for the Study of Human Reproduction
Faculty of Medicine
University of Santo Tomas
España, Manila
Philippines

176. Jayasuriya, D.C. *Legal dimensions of population dynamics; perspectives from Asian countries.* Mt. Lavinia, Associated Educational Publishers, 1979. 175 p.

Most of the studies in the Asian region have contained hardly any information on the legal aspects of population dynamics. This book is intended to fill the void. The first two chapters deal with the genesis and conceptualization of Population Law. In Pakistan, Bangladesh and Sri Lanka, the legal position regarding abortion is the same. A pregnancy could be terminated only to save the life of the mother. In Nepal it is a crime to induce abortion. Property and inheritance laws in Sri Lanka, Pakistan, India and Bangladesh are discussed. In several countries of this region population laws have not been enacted. Sri Lanka is a classic example, although it has held many seminars on population and law. During the course of visits to Nepal, Bangladesh and India, the author has had occasion to meet those associated with problems on law and population and to use these interviews as the basis for this book.

Descriptors: *Law; Population Dynamics; Legal Aspects; Asia*

Source: Associated Educational Publishers
34/2 De Saram Road
Mt. Lavinia
Sri Lanka

177. Luna, Telesforo W. "Population and natural resources," in: Economic and Social Commision for Asia and the Pacific. *Population of the Philippines.* Bangkok, 1978. (Country monograph series no. 5), p. 289-297.

This paper examines the availability of various natural resources in the Philippines which can be utilized to meet the development needs of the country's growing population. The Philippines is well endowed with resources which can meet the development needs of the population. These are forestry, land, mineral and fishery resources. The favourable climate, soil and topography make many parts of the country suitable areas for agricultural development. The vast topical forest is a good source of timber; the mineral resources provide the country's need for ore, nickle, copper, gold, iron, etc., the land and fishery resources provide the population with their food supply. However, many of the country's natural resources, particularly land and forest, have been suffering from indiscriminate exploitation and neglect. The mineral and fishery resources appear to be more promising.

The author recommends a comprehensive programme for socioeconomic development which should include: (a) an appraisal of the present system of resource utilization; (b) an analysis of cultural and physical obstacles to resource development; and (c) an estimate of resource potentials, taking into account conflicting uses and demands for given resources, expected population trends and the probable role of technological change through successive periods.

Descriptors: *Natural Resources; Nature Conservation; Philippines*

Source:
Clearinghouse and Information Section
ESCAP Population Division
Rajdamnern Avenue
Bangkok 10200
Thailand

178. Manat Suwan. *Population and rural development: a human ecological analysis.* Bangkok, National Institute of Development Administration, 1984. 82 p. In Thai.

This study is attempted to examine the factors that influence the living of rural people. These factors are population, physical environment and socio-economic factors. Using survey data from two areas, one in the Maung District of Lumphun Province and the other in Doi-Saked District of Chiang Mai Province.

It was found that the population factors have the strongest influence on the living of the rural people. Socio-economic factors have moderate influence and physical factor have the least. The result from the findings suggested that to develop the rural area, a single development programme will not work out successfully, but should take into consideration other schemes that are suitable to the areal differentiation of each specific rural area.

Descriptors: *Rural Development; Environment; Socio-economic Factors; Thailand*

Source:
National Institute of Development Administration
Klong Chan, Bangkapi
Bangkok 10240
Thailand

179. Marga Institute. *The new housing study, June 1984.* Colombo, 1984. 470 p. (M.19 Restricted circulation).

This study is the outcome of a proposal which was made jointly by the Ministry of Local Government, Housing and Construction and USAID for a comprehensive analytical policy of the developments in the housing sector during the inter-censal period 1971-1981. Some of the special characteristics of Sri Lanka's pattern of development are discussed briefly in Chapter 1 on the socio-economic background. Chapter 2 provides a detailed analysis of the changes in the housing situation which occurred between 1971 and 1981. Chapter 3 provides three alternative projections of future housing needs for four to five-year periods up to the year 2001. Chapter 4 discusses government housing programmes and policies and the role the State has played in housing development. Chapter 5 gives details of land availability for housing which is of prime concern in view of population pressures on land. Chapters 6, 7 and 8 deal with some of the key resources needed for housing - finance, land, materials related to the construction industry and manpower. The concluding chapter is a selected summary of the main conclusions and recommendations of the substantive part of the study. This work was supported by a field survey which provided useful "insights regarding housing needs, levels of satisfaction and aspirations of a cross-section of households in population".

Descriptors: *Housing Needs; Sri Lanka*

Source:
Sri Lanka Centre for Development Studies
Marga Institute
61 Isipathana Mawatha
Colombo 5
Sri Lanka

180. Pakistan. Ministry of Health and Social Welfare. Population Planning Division. *Prologue to development policy and population policy.* Background papers of Workshop/Seminar, 4-8th February 1975. Rawalpindi [1975]. 78 p.

These background papers were published in the form of a monograph at the end of an ICP workshop/seminar of the International Programme for Population Analysis of the Inter-disciplinary Communication Programme. The first and second articles are in French "Résumé en Francais" and "Résumé en Castellana". The next article is in English "Food and Fertility Formulation of Public Policy in Pakistan". Table 1 gives daily per capita calorie intake and paints a grim picture of malnutrition. The author suggests that a demand be created for modern means of limiting family size, where agricultural policies merge with population policies. A massive social reorganization has to take place that requires redistribution of land, reform of tenurial and marketing arrangements and setting up new financial institutions. The last article is on "Major Aspects of Family Planning in Pakistan". These programmes include health services that lower infant and child mortality, programmes of functional literacy, institutionalized forms of old age security, upgrading education, improvement of the status of women, more equitable distribution of income, in addition to direct birth control programmes. The last section is an annotated bibliography of social science literature on population policy in Pakistan.

Descriptors: *Socio-economic Development; Population Policy; Pakistan*

Source:
Interdisciplinary Communications Programme
Smithsonian Institute
1717 Massachusetts Avenue, N.W.
Washington, D.C. 20036
U.S.A.

181. Paqueo, Vicente B. "Economy-wide consequences of rapid population growth," in: Herrin, Alejandro N. *Essays on the economics of fertility.* Population growth and public intervention in a developing country: the Philippines. [Quezon City] School of Economics, University of the Philippines, 1982. (Discussion paper 8212), p. 1-35.

A review of literature on the effects of demographic process on economic development shows that in principle, there are various mechanisms through which population growth can positively influence economic growth. Population growth is considered good for the economy because it challenges the human spirit to be more diligent, creative and productive and increase agregate demand, and hence, stimulate production and investment. The author strongly pointed out that this principle does not apply in developing countries like the Philippines. The Philippines is characterized by among other things, high population growth and low per capita income. It is pointed out that rapid population growth will only contribute to lower per capita income, low savings and inadequate social services. A reduction in fertility, on the other hand, can stimulate economic growth and consequently alleviate poverty in the country.

Public intervention in the procreative decisions of couples is recommended to achieve the goals of reducing fertility. A reduction in fertility will facilitate the achievement of the good of raising per capita income, reducing poverty and providing better social services.

Descriptors: *Economic Development; Family Planning; Philippines*

Source:
University of the Philippines
School of Economics
Diliman, Quezon City
Philippines

182. Philippines. Ministry of Education, Culture and Sports. Population Education Program. *Consequences of rapid population growth.* Module no. 8 of "A module in population education for elementary and secondary school teachers." Manila, 1984. 30 p.

There really is no problem with a large population per se. There is a problem when the resources available cannot meet the requirements of the population. This module is concerned with the resources needed to support the population. Specifically, it is concerned with the consequences of rapid population growth on food, economic development, education, health and social services and ecosystem.

The module presents data showing the adverse effects of rapid population growth on food supply. With the rapid increase in the size of the population, world per capita food production experiences a significant decline. This decline has led to increase in food prices and dependence of less developed nations on few developed countries for food supply. Moreover, the shortage in food supply has brought about an increase in the number of malnourished population and a rise in death rates.

Rapid population growth is also associated with economic stresses such as unemployment, low per capita income, global inflation, capital scarcity and diminishing negative returns. Rapid population growth increases population pressure on land, other resources and consequently diminishing negative returns. Rapid population growth increases population pressure on land and other resources and consequently diminish investment returns. An increase in population size has the effect of increasing the labour force. In many developing countries with a very limited labour market, an increase in the size of the labour force leads to an increase in unemployment rate.

The module also points out the ways in which rapid population growth affects education. Large increases in the size of the school-age population can hinder attainment of educational targets and slow the improvement of the quality of education. In developing countries for instance, limited school facilities can hardly accommodate the growing number of pupils. This has led to increase in illiteracy rate and in the number of out-of-school youths.

Rapid population growth can also have negative consequences on health and other social services. As population grows, the maintenance of existing health and other social services become increasingly difficult. Qualitative improvements of health facilities are also hindered by rapid population growth.

The rapid rate of population increase can also negatively affect the ecosystem. Rapid industrialization and urbanization have caused the deterioration of many parts of the world. These factors have also brought about pollution, congestion and disruption of the balance in the ecosystem.

Descriptors: *Population Pressure; Health Conditions; Education; Economic Development; Environment; Quality of Life; Philippines*

Source:
Population Education Program
Ministry of Education, Culture and Sports
Palacio del Gobernador
Intramuros, Manila
Philippines

183. Population, Resource, Environment and the Philippine Future Program (PREPF). *Probing our future: the Philippines 2000 AD.* Manila, National Economic and Development Authority, 1980. 222 p.

The PREPF report is a collection of scenarios about the world situation, and the Philippine population, resources and environment, health, education and income-sharing into 2000 A.D. The first chapter looks into the world scenarios for 1975-2000. Scientists and experts hazard a cautious optimistic projection: the earth will survive, given the right interplay of the following variables - population, food supply, politics, trade and energy. The world prospects in this area for the year 2000 are discussed.

The second and third chapters deal with the Philippine population. The focus is on the growth and distribution of the population during the century, paying close attention to migration flows between and within regions, and the sources and variations of urban growth; population size and density; age structure; the growth and composition of the labour force; family formation; and alternative population future. The succeeding chapters assess the current situation and draw up scenarios for the year 2000 for the following areas which affect quality of life: natural resources, education, health and nutrition and income sharing. Policy recommendations intended to secure the "best" possible future for the country are given for each area.

Descriptors: *Development Planning; Socio-economic Conditions; Quality of Life; Philippines*

Source:
Population Center Foundation
P.O. Box 2065
Makati Central Post Office
Sen. Gil Puyat Avenue
Makati, Metro Manila
Philippines

184. Puvanarajan, P. *On-going social change in Sri Lanka.* Colombo, Family Planning Communications Strategy Project, Department of Information, 1975. 44 p.

This study focuses attention on the population affected by on-going socio-economic changes in Sri Lanka. In Chapter I, the main demographic trends are traced and their implications for social change assessed. Chapter III lists the agents of social change in the country - education, urbanization, age at marriage and land reform. In the field of education the equalization of opportunities among students through the introduction of the free education scheme was the main positive factor in population reduction, as education has a powerful influence on fertility. Urbanization was also a precursor to social change, resulting in modernization, which in turn disturbed norms affecting high fertility and changed nuptiality patterns. Employment and education were causal factors in marital postponement and a rise in the age of marriage. Land settlement schemes, particularly colonization schemes, tended to relieve pressure on land in the villages and led to increased production. Favourable terms of trade, high prices for agricultural products and better social amenities led to changes in income distribution, although there was a large proportion still living far below the poverty line.

Descriptors: *Socio-economic Development; Social Change; Sri Lanka*

Source:
Family Planning Communications Strategy Project
Department of Information
No. 7, Sir Baron Jayatillaka Mawatha
Colombo 1
Sri Lanka

185. Rao, V.M. *Food.* New Delhi, Macmillan Company of India, 1975. 117 p. (Second Indian Studies).

The purpose of this study is to present a brief account of India's prospects for food over the next three decades. The book begins with a vivid description of the nature of the food problem in India. It then examines the requirements of food in relation to the population. It is suggested that the policies needed for solving the food problem go way beyond the programmes for increased production. Chapter Three indicates the potential for increased production and describes the main dimensions of the tasks entailed in realizing it so that its impact on the food problem is maximized. Hunger in India is an integral component of poverty. The broad effect of its food policies in the years since Independence has been to control "overt hunger" caused by erratic monsoons without allowing them to develop into famines.

The new thinking on the Fifth and later plans provides some ground for hope that India has begun to look beyond "overt hunger". The proved scenario sketched in this book justifies a measure of optimism, namely that India can solve its food problem.

Descriptors: *Food Production; Food Requirements; Food Policy; India*

Source: Macmillan Company of India Ltd.
4 Community Centre
Narina Industrial Area, Phase 1
New Delhi-110028
India

186. Sri Lanka. Department of Census and Statistics. *Projections of food requirements for Sri Lanka 1981-2001.* Colombo, 1978.

For the purpose of projecting the food requirements of the country, the population for the period 1981-2001 has been projected, starting with the estimated population at mid-year 1971. In this publication, the approach taken in forecasting the food needs of the future is based on nutritional standards and the balanced diet tables set up by the Medical Research Institute. The items listed - rice, bread, wheat flour, coconuts, roots and tubers, sugar, pulses, meat, fish, milk, vegetables, fruits, beverages and spices. The requirements are given in respect of the different age groups and sexes. Infants under one year of age have been omitted. In connection with the planning of cropping patterns and crop acreages from the Mahaweli Project, the food requirements using nutritional standards have been computed and are reported in this publication. These projections have been prepared assuming that fertility will gradually decline to 60 per cent of the 1971 level and the expectation of life will reach the value of 72.2 years for females and 68.5 for males.

Descriptors: *Food Requirements; Sri Lanka*

Source: Department of Census and Statistics
P.O. Box 563
Colombo 7
Sri Lanka

187. World Bank. *Population, health and nutrition in the Philippines. A sector review, volume II: Main report with tables and technical annexes.* Washington, D.C., 1984.

Reducing population growth and improving health and nutrition in the Philippines are primary concerns of the Philippine Government. This volume comprehensively reviews the status of these three sectors.

Part I focuses on such topics as population, size, trends and demographic characteristics like age-sex composition, dependency ratio, fertility, mortality and nuptiality, socio-economic consequences of population growth, population policy and organization, population plans and programme, and population programme performance. Part II discusses the health status of the population. Health policies and plans, organization and management, health sector performance, and health care programmes are dealt with. Part III analyses the nutritional status of the population. The country's nutrition programme, its policies and plans are presented. Part IV is about the economics and financing of the three sectors. The roles of various agencies supporting the population, health, and nutrition programmes are highlighted. Issues and recommendations are also provided.

Descriptors: *Population Policy; Health Conditions; Health Policy; Nutrition; Population Dynamics and Composition; Philippines*

Source: Population, Health and Nutrition Department

World Bank
1818 H Street
Washington, D.C. 20433
U.S.A.

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